AMERICAN RAILROAD JOURNAL.

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HENRY V. POOR, Editor.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 54 WALL STREET, NEW YORK.

Saturday, May 26, 1849.

Railways in Massachusetts.

RETURNS OF RAILROAD COMPANIES.

In our paper of March 31, we gave a full abstract of the returns made by the different Massachusetts railway companies for the year 1848, intending to make some comments thereon at an earlier day, but have deferred them till we could see the final action of the Legislature upon the subject of railways.

Three years has brought some experience to the railway companies of New England, and the minuteness required in future returns over that in the law of 1846 by the present law of Mass., hereafter given conclusively proves that the confidence of the community in the doings of directors has, in several instances been somewhat shaken the last few years. The surest remedy for the correction of all errors of this sort, is found in the publicity given to the proceedings of railway directors. We see no reason why the doings of the directors of railway companies should not be open to the inspection of the stockholders as much as those of municipal corporations. They should not be allowed to become trading companies, or like banks and manufactories. They have far higher duties to perform in furnishing assistance to all the great industrial and commercial interests of the country. For this purpose they are allowed the right of taking land for the road way and station houses, and generally relieved of taxation. The principle of the law giving them these rights is justified on the ground that the lands are taken *for public uses.*

We commend this subject to the consideration of the Legislatures of the different states, and hope to see a law enacted containing similar provisions in each state in the Union. The Massachusettts statute requires more minuteness in the returns than the New York law published by us last week.—There are some requirements in the New York law which are not contained in the Massachusetts statute providing for classifying the different articles of freight, specifying the products of agriculture and other branches of industry. We repeat the suggestions before made, that the returns should give not only the different descriptions of freight, but also the direction in whichit is carried.

It would be quite satisfactory, for example, to know the comparative value and amount of freight sent from or arriving at tide water by the Boston and Worcester railroad, and the direction in which the manufactures of Lowell and Chicopee are sent to market. All information of this sort is valuable as far as it shows the course of trade in the country.

We should have been better pleased with the Report of the Railway Committee of the Massachusetts Legislature had they given the proper authority for their statement as to the extent and cost of railways in this country and England, and the comparative cost of the running of roads.

They copied from this Journal verbatim, without giving any credit, their statement as to the extent and cost of the English railways, and the statement also of the extent of railroads in the United States, but they have added some errrors that we are not anxious to be held responsible for. Our estimate of the cost of the English railways finished, was at the rate of $145,000,000 per mile, at the end of the year 1848, and the amount actually expended in the month of July, 1848, was equal to $142,000,000. The committee, it seems, confounded the two statements together. Again, the committee say, "the miles of railway finished in New York, it is believed, do not exceed 750," while they claim 1043 miles within the state of Massachusetts.

The number of this Journal from which they took their statements as to the extent of the American and English railways, gives a list of roads in operation in New York amounting to 1019 miles, and shows the Massachusetts roads to be equal to 876¼ miles.

In order to make out the number of miles claimed by the committee as Massachusetts roads, they include the entire distance of the Providence and Worcester, the Boston and Maine, the Cheshire and several other roads, partly lying in other states.—The Providence and Worcester railroad, for example, was but a very small part of it built by Massachusetts capital, and so of many others included in the list. We make these corrections, or rather call attention to them with a view to put future committees on a more careful inquiry. As much as we admire Boston capital and Massachusetts industry, we see a disposition sometimes to claim a little more than their share of what joins them.

But coming back to the point from which we started, we propsee to speak of the causes that have led to these stringent requirements in Massachusetts

Each company was requiredby the old law to return the amount of interest paid on its "*funded and floating*" debt. Many of the returns omitted to state the average rate of interest paid by the company, and a special call was made for this information by the Legislature.

The following, taken from the Report of the Legislative Committee, shows the amount borrowed by the Massachusetts railway companies during 1848, with the rates of interest paid thereon:

	Amount.	*Rates.*
Boston and Lowell.....	$50,000 00	6 per ct.
" " Maine.....	197.257 64	6 "
" " Providence....	297,000 00	6 to 15
" " Worcester....	671,715 52	no rate giv'n
Cape Cod Branch.....	132.147 50	" "
Cheshire.....	264,477 97	6 to 18
Connecticut River.....	511,865 00	6 to 15
Dorchester and Milton...	17,000 00	6 per ct.
Eastern.....1,054,186 00	av. 10 5 100	
Essex.....	52,000 00	12 to 18
Fall River.....	256,394 68	
Fitchburg.....	82,000 00	6 per ct.
Grand Junction.....	39,239 12	6 "
Hartford and N. Haven..	75,000 00	6 to 7
Lexington and W. Cambridge.....	12,000 00	6 to 18
Lowell and Lawrenee...	71,250 00	6 to 12
Nashua and Lowell.....	has borrowed no money.	
Norfolk Co.....	40,000 00	21 per ct.
Norwich and Worcester..	17,000 00	6 per ct.
Old Colony.....1,155,457 00		
Petersboro' and Shirley...	13,510 00	6 per ct.
Prov. and Worcester....	72,231 48	8 1-20
South Shore.....	139,706 55	
Stony Brook.....	96,324 11	6 to 12
Vt. and Mass.....	220,930 25	
Worcester and Nashua..	87,756 50	6 to 18

The whole amount borrowed, as above, is $5,627,-349, 32, at rates varying, as above, from 6 to 21 per cent. Some of the corporations, it will be seen,

still declined, to state the rates of interest paid. Of course we cannot know what they were; but if they were the legal rates, it is strange that they were not fully reported.

The return of the Old Colony railroad Company states in answer to the call for the "*average rate of interest per annum*," "the company paid no fixed rates of interest, but paid from day to day the current rates to complete the construction, and on construction account."

The stock of several of these roads declined rapidly in the market as the returns came in.

The following table shows the comparative prices at different periods during the last fourteen months, of the leading Massachusetts roads:

	March 31, 1848.	*March* 31, 1849.	*May* 15, 1849.
Boston and Lowell	114¼	112	116¼
Boston and Maine	117¼	103¼	105¼
Boston and Worcester	117	105¼	108¼
Boston and Providence	100	89	91
Fitchburg	117¼	109	112¼
Western	104	100¼	105

One leading cause of the decline of the stock on some of these roads, was the fact that the companies divided in January more than the amount of their net earnings.

The following statement shows the amount of net earnings of the six leading roads named, compared with the amount of dividends paid in 1848:

	Net Earnings.	*Dividends.*
Boston and Lowell	$192,631	$144,000
Boston and Worcester	310,080	325,520
Boston and Maine	247,093	252,798
Boston and Providence	171,013	175,349
Fitchburg	200,219	201,029
Western	413,330	366,000

It will be seen that *four* of these roads divided more than their net earnings. The advance of stock to May 15 is a trifle only above the probable earnings since March.

Another cause of a decline was the fact that the amount paid for renewals and repairs was less than the supposed actual depreciation of several of the roads.

We give the following comparison, showing the length of line, including branches, and the amount paid for repairs and maintenance of way in 1848, on the six roads before named:

	Length of Line.	*Paid for maintenance of way*, 1848.
Boston and Lowell	27¼	$56,046
Boston and Worcester	66¼	50,519
Boston and Maine	79¼	41,303
Boston and Providence	47¼	35,800
Fitchburg	56	26,365
Western	117¼	122,734

The return of the Western road estimates the depreciation of way beyon the renewals at $52,000 In neither of the other roads named is any such estimate made.

The dividends on the same roads in 1847-8 were as follows:

	1847.	1848.
Boston and Lowell	8 per ct.	8¼ per ct
Boston and Maine	9 "	8¼ "
Boston and Worcester	10 "	8¼ "
Boston and Providence	7¼ "	6¼ "
Fitchburg	9 "	8¼ "
Western	8 "	8 "

The following statement shows the time each road was finished, and the entire amount divided by each company since the time of opening the same, and the amount of the debt of each company more than the surplus on hand:

	Road completed.	*Am. of Dividends paid.*	*Debt over surplus.*
Boston and Worcester	1835	93¼	$255,144
Boston and Maine	1843	81¼	249,718
Boston and Providence	1835	95¼	26,879
Fitchburg	1845	36¼	67,504
Western	1842	30	
Boston and Lowell	1835	95¼	

The Western railroad owes a funded debt of $5,319,250, but has a surplus to the construction account, and to the sinking fund, equal to $567,367, reducing the cost of the road to this extent below its apparent indebtedness. The Boston and Lowell railroad has an actual surplus of $191,576 above its debts.

We selected these six Massachusetts roads as examples, from the fact of their being regarded as among the best managed roads in New England, and their stock commanded the highest price.

The expense of running trains differed materially on different roads, depending much upon the comparative number of passengers carried per mile.—The working of branch lines has increased the expense of running roads, beyond the income derived. We give below the comparative cost per mile on the *seven* different lines running into the city of Boston:

Cost of running for 1848, *in cents, per mile.*

Boston and Lowell per mile	100	cents.
Boston and Worcester "	82	"
Boston and Providence "	74	"
Boston and Maine "	69	"
Eastern "	68	"
Fitchburg "	55	"
Old Colony "	63	"

The two last named lines having the latest equipment, show the lowest scale of expense. The entrance into Boston adds of course to the expense of each of them. The expense of running the Western road in 1848 was 81 cents per mile.

The foregoing table shows that the net earnings of a road depend less upon the expense of running them per mile than another causes, such as the number carried per mile in each train.

The following figures showing the number of passengers and tons of freight carried one mile on the before mentioned roads, may be of interest in illustration to our previous remarks:

	No. passengers carrieed one mile in 1848.	*Tons of freight.*	*Length of road.*
Boston and Lowell	10,496,226	7,809,126	27¼
Boston and Maine	16,991,088	3,725,445	79¼
Boston and Worcester.	15,540,022	10,195,309	66¼
Boston and Providence	8,783,106	1,706,426	47¼
Fitchburg	11,425,963	6,743,039	56
Western	19,871,774	24,656,129	117¼

The opening of two new roads from Worcester, one to Providence and the other to Nashua, has already had an influence in the business of the Boston and Worcester railroad. The following comparison of the condition and the business of this road, for the years 1847-8, we give in the following table:

	Length of line.	*Capital.*	*Gross earnings.*	*Expense.*	*Net earnings.*
1847..	58¼	$3,500,000	$722,170	$381,985	$340,184
1848..	66¼	4,500,000	716,284	406,203	310,080

The stock of the Boston and Maine railroad was said to be affected by the determination of certain suits against it, amounting to some $100,000 or more.

Comparing the business of 1847-8 on the Boston and Maine railroad, the following result is exhibited.

	Length of line.	*Capital.*	*Gross earnings.*	*Expenses.*	*Net earnings.*
147...	78	$2,974,100	$511,504	$220,259	$291,245
1848..	79¼	3,540,800	511,627	264,534	247,093

Without pursuing these remarks further in the present number, we think our readers will see that the most stringent requirements should be imposed upon all railway companies, and that the Legislatures of the several states should enact laws similar to those of New York and Massachusetts.—The investment of capital in the stock of these roads at 18 per ct. advance, can hardly be justified by the facts set forth in their reports. It may be fairly questioned whether railway companies should ever be allowed to divide more than *six* per cent. per annum on their capital, or whatever sum may be the legal rate of interest in the state where they are located. The necessities of the community require the extension of railways into every portion of the country capable of supporting one, and the disposition to make extravagant gains on the more fortunate lines, not only stimulates speculation in railway shares, but diverts capital from the ordinary channels of business into over investment in local enterprises, producing in the end revulsions in trade and a sacrifice of property. Speculation in railway shares, has been one great cause of the stringency of money matters in New England the past 18 months, and the chief cause of the commercial revulsions in England.

Every Legislature in the Union should look to this matter, and provide for the proper exhibition of the doings of railway companies *annually*, or oftener, as the only safeguard against an inflation of the price of railway shares, and an inconsiderate extension of questionable enterprises.

The following is the Law passed by the Legislature of Massachusetts, at its recent session, in regard to Railroad Companies.

—

An Act to amend the Act relating to Railroad Corporations.

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

Section 1. The annual report now by law required to be made by the directors of the several railroad corporations, within this Commowealth, shall hereafter contain full information upon the several items hereinafter enumerated, to wit:

FORM OF RAILROAD RETURN TO THE LEGISLATURE:

Capital stock, $—,
Increase of capital since last report,
Capital paid in per last report, $—,
Capital paid in since last report,
Total amount of capital stock paid in,
Funded debt per last report,
Funded debt paid since last report,
Funded debt, increase of, since last report,
Total present amount of funded debt,
Floating debt, per last report,
Floating debt paid since last report,
Floating debt, increase of, since last report,
Total present amount of floating debt,
Total present amount of funded and floating debt,
Average rate of interest per annum paid during the year,
Maximum amount of debt for each month during the year, viz: January, $—, February, $—, March, $—, April, $—, May, $—, June, $—, July, $—, August, $—, September, $—, October, $—, November, $—, December, $—.

COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report,

For graduation and masonry paid during the past year,
Total amount expended for graduation and masonry,
For wooden bridges, per last report,
For wooden bridges, paid during the past year,
Total amount expended for wooden bridges,
Total amount expended for iron bridges, (if any,)
For superstructure including iron, per last report,
For superstructure, including iron, paid during the past year,
Total amount expended for superstructure, including iron,
For stations, buildings and fixtures, per last report,
For stations, buildings and fixtures, paid during he past year,
Total amount expended for stations, buildings and fixtures,
For land, land damages and fences, per last report,
For land, land damages and fences, paid during the past year,
Total amount expended for land, land damages and fences,
For locomotives, per last report,
For locomotives, paid duringthe past year,
Total amount expended for locomotives,
For passenger and baggage cars, per last report,
For passenger and baggage cars, paid during the past year,
Total amount expended for passenger and baggage cars,
For merchandize cars, per last report,
For merchandize cars paid during the past year,
Total amount expended for merchandize cars,
For engineering, per last report,
For engineering, paid during the past year,
Total amount expended for engineering,
For agencies and other expenses, per last report,
For agencies and other expenses, paid during the year,
Total amount expended for agencies and other expenses,
Total cost of road and equipment,

CHARACTERISTICS OF ROAD.

Length of road,
Length of single main track,
Length of double main track,
Length of branches owned by the company, stating whether they have a single or double track,
Aggregate length of sidings and other tracks, excepting main track and branches,
Weight of rail per yard in main road, specifying the different weights per yard,
Weight of rail per yard in branch roads, do. do.,
Maximum grade, with its length in main road,
Maximum grade, with its length in branch roads,
Total rise and fall in main road,
Total rise and fall in branch roads,
Shortest radius of curvature, with length of curve in main road,
Shortest radius of curvature, with length of curve in branch roads,
Total degrees of curvature in main road,
Total degrees of curvature in branch roads,
Total length of straight line in main road,
Total length of straight line in branches,
Aggregate length of wooden truss bridges,
Aggregate length of other wooden bridges,
Aggregate length of iron bridges,
Whole length of road unfenced on both sides.
Number of public ways crossed at grade,
Number of railroads crossed at grade,
Remarks,
Way stations for express trains,
Way stations for accommodation trains,
Flag stations,
Whole number of way stations,
Whole number of flag stations.

DOINGS DURING THE YEAR.

Miles run by passenger trains,
Miles run by freight trains,
Miles run by other trains,
Total miles run
Number of passengers carried in the cars,
Number of passengers carried one mile,
Number of tons of merchandise carried in the cars,
Number of tons of merchandise carried one mile,
Number of passengers carried one mile, to and from other roads,
Number of tons carried one mile to and from other roads,
Rate of speed adopted for express passenger trains, including stops,
Average rate of speed actually attained by express passenger trains, including stops and detentions,
Rate of speed adopted for accommodation trains,
Rat · of speed actually attained by special accommodation trains, including stops and detentions,
Average rate of speed actually attained by special trains, including stops and detentions,
Average rate of speed adopted for freight trains, including stops,
Estimated weight, in tons, of passenger cars, not including passengers, hauled one mile,
Estimated weight, in tons, of merchandise cars not including freight, hauled one mile,

EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden truss bridges and renewals of iron,
For repairs of wooden bridges,
For renewals of iron, including laying down,
For wages of switchmen, (av. pr month, $) } Total
For wages of gatekeepers, (av.pr month, $) }
For wages of signalmen, (av.pr month, $) }
For wages of watchmen, (av.pr month, $) }
Number of men employed, exclusive of those engaged in construction,
For removing ice and snow, (this item to include all labor, tools, repairs and extra steam power used,)
For repairs of fences, gates, houses for signal men, gate keepers, switchmen, tool houses,
Total for maintenance of way,

MOTIVE POWER AND CARS.

For repairs of locomotives,
For new locomotives to cover depreciation,
For repairs of passenger cars,
For new passenger cars to cover depreciation,
For repairs of merchandise cars,
For new merchandise cars to cover depreciation,
For repairs of gravel and other cars,
Total for maintenance of motive power and cars,
Number of engines,
Number of passenger cars,
Number of baggage cars,
Number of merchandise cars,
Number of gravel cars.

MISCELLANEOUS.

For fuel used by engines during the year, viz:—
Wood,
Coal,
For oil used by cars and engines,
For waste and other material for cleaning,
For salaries, wages and incidental expenses, chargeable to passenger department,
For salaries, wages and incidental expenses, chargeable to freight department,
For gratuities and damages,
For taxes and insurance,
For ferries,
For repairs of station buildings, aqueducts, fixtures, furniture,
For interest,
For amount paid other companies, in tolls, for passengers and freight carried on their roads, specifying each company,
For amount paid other companies as rent for use of their roads, specifying each company,
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above offices, and all other expenses not included in any of the foregoing items,
Total miscellaneous.
Total expenditures for working the road,

INCOME DURING THE YEAR.

For passengers:—
1. On the main road, including branches owned by company,
2. To and from other roads, specifying what:
For freight:—
1. On main road and branches owned by company.
2. To and from other connecting roads:
U. S. mails,
Rents,
Total income,
Net earnings after deducting expenses,

DIVIDENDS.

— per cent., total $——,
Surplus not divided,
Surplus last year,
Total surplus,

ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ

Road and bridges,
Buildings,
Engines and cars,

Section 2. Any person who shall fraudulently evade, or attempt to evade, the payment of any toll or fare, lawfully established by any railroad corporation, either by giving a false answer to the collector of the toll or fare, or by travelling beyond the point to which he may have paid his toll or fare established for the distance travelled, or otherwise, shall, upon conviction thereof, before any justice of the peace, in any county where such offence may have been committed, be punished by a fine of not less than five nor more than twenty dollars for every such offence, together with the costs of prosecution. And no person, who shall not, upon demand, first pay such established toll or fare, shall be entitled to be transported over said railroad. Every railroad corporation shall be held to furnish reasonable accommodations for passengers, with reference to their convenience and safety; and in every case of wilful neglect of the same, any corporation so offending, shall be subject to a penalty of not less than five nor more than twenty dollars, to be recovered as provided in this section.

Section 3. The first section of the two hundred and fifty-first chapter of the laws, passed in the year one thousand eight hundred and forty-six, is hereby repealed.

Section 4. The duties enjoined by the second, third and fourth sections of the act, to which this act is an addition, and applicable to the first section thereof, shall continue and be applicable to the first section of this act.

Approved by the Governor, May 1, 1849.

Iron Ores and the Iron Manufacture of the United States.

MASSACHUSETTS.

The iron works and mines of this State will be treated of under the separate heads of *Early Operations; Primary Ores; The Hematite Region; and Blast Furnaces.*

Early Operations.—The smelting of iron ores appears to have commenced at an early date in the south eastern part of Massachusetts; and to have been prosecuted with remarkable vigor considering the inferior resources of the country in the materials required for the business. The first smelting furnace known in the county of Plymouth was erected in the year 1702 by Lambert Despard at the outlet of Mattakesset pond, in the town of Pembroke. In the early part of the present century there were in the county ten blast furnaces in operation, all of which have since been abandoned. As the precarious supply of ore failed, on which they depended, the labor and capital engaged in smelting appear to have been turned to the refining of pig iron and working the metal into finished articles, as nails, tacks, and the numerous utensils, whose manufacture is still there industriously prosecuted. The ores used were bog ores obtained from the ponds, which were mixed with similar ores brought from Egg Harbor, New Jersey, in vessels, and landed at Plymouth. These were carted back into what was then a thick pine wood district, thickly studded with numerous ponds.

The grandfather of the writer, James Thacher, M. D., owned, with others, a furnace in Carver, Plymouth county, and in the year 1804, he published in the "Collections of the Massachusetts Historical Society," an account of the business, as it was then conducted. From his article the following information is obtained.

"There are in the county of Plymouth several ponds, in which are found copious beds of iron ore;

of these, Assawampsit in Middleboro', Monponsett in Halifax, and Sampson's pond in Carver, are the most distinguished for their prolific virtues in this respect. It is now about 60 years since ore was first taken from the ponds, the former of which, during a considerable period, afforded an annual supply of 600 tons, but it is now so far exhausted, that not more than 300 tons can be procured; and about 100 tons is also taken annually from each of the others.

* * * * * *

The period of its growth is supposed to be about twenty-five years; and it is found in various depths of water, from two to twenty feet. A man accustomed to the employment being in a small boat, with an instrument similar to oyster tongs, can raise from its watery bed about half a ton of this ore in a day."

A description is then given of three varieties of the ore, which are distinguished by the size of the pieces in which they occur, and their color. The variety found in ledges of rock in shoal water and called *ledge* or *shot* ore, is of a reddish brown color, and of the size of peas and bullets, and yields near twenty five per cent. of iron; the next found in from two to six feet of water, is of a dark brown color, and in pieces shaped like figs; this was called *pancake* ore, and it is of about the same percentage with the former. The last, called *black* ore, from its dirty black color, occurs in a muddy bottom in deep water, is of an earthy and crumbly character, melts easily and promotes the fusion of the most refractory ores. The average price of these ores delivered at the furnace was six dollars per ton. The ore brought from New Jersey is described as being produced in large masses compact and ponderous, some weighing 100 lbs. each, of a reddish brown color, yielding from 30 to 40 per cent. The usual price was six and a half dollars per ton.

"Bog ore abounds in swamps and other low places subject to an overflow of water issuing from springs, particularly in the vicinity of the several ore ponds, between which and the sea almost every bog is impregnated with it, extending even to the margin of salt marshes. Its growth is observed to be more rapid where springs most abound; and diverting the course of the water subverts the production of ore no less effectually than vegetation is destroyed by depriving the stamina of its nutriment. This ore is disposed in beds or strata of various depths from the surface, and of divers irregular shapes.—From some strata, four feet thick, masses have been digged weighing from one hundred to five hundred pounds; more frequently, however, it is found widely disseminated and intermixed with a kind of loam. Veins of this ore have been traced from bogs to the adjacent hills, the natural matrix of minerals and probably the generating source of bog ores. It is of a rusty brown color, yielding about 18 per cent., and worth four dollars per ton at the furnace.

There is another kind found in bogs and swamps which the workmen call *swamp* or *mud* ore: it is a ferruginous earth or glebe resembling black mould, externally destitute of any metallic appearance, but being washed with water, small granulated particles of iron subside to the bottom. On examining a quantity of this earth, my attention was attracted by some pieces of a beautiful sky blue. It is found four feet below the surface, and when first discovered is of a pale yellow; but coming in contact with the air is soon changed to that of native Prussian blue. This admixture affords some iron, and is deemed an indispensable ingredient to qualify and render more fusible hard and refractory ores. Bog ore being all digged from its bed, the workmen are careful to cover the cavity with loose earth, leaves, bushes and other rubbish, calculating upon another growth in ten or fifteen years; not unfrequently, however, this expectation is realised in seven years."*

The operations at this early period appear to have been conducted in the rudest manner. The furnaces were of good size, about twenty feet high above the hearth, and eight feet across the boshes, but the blast was raised by "two large bellows, twenty-two feet long and four feet wide, which being kept in constant alternate motion by the agency of a water wheel twenty-five feet diameter, a powerful current of air is excited."

The flux used was sea shells, carted up from the coast. The iron appears to have been run at once into castings of a great variety of patterns, as machinery, stoves, cannon balls, hollow ware, &c.—Twelve hundred pounds of these were called a ton, and of these tons three hundred and sixty were manufactured in the two or three blasts, which occupied about six months of the year, and at the following estimate:

	Dolls.	cts.
"2,130 cords of wood converted into loads of charcoal, at $2,50	3,550	00
726 tons of ore at $6	4,356	00
Two sets of stone for hearth	153	32
Compensation to the founder at $1 per ton	360	00
" " moulders and other workmen	2,331	00
	10,750	32

To be continued.

Tuscany Furnaces.

The concluding paper on these furnaces will be given in the next number of the Journal. H.

Literature.

"A Tour of Duty in California; including a Description of the Gold Region; and an Account of the Voyage around Cape Horn."

The above is the title of an interesting work by Lieut. J. W. Revere, lately published by Messrs. C. S. Francis & Co., of New York. The author was on service under Commodore Stockton, on the coast of California during the years 1846-7. He had responsible duties to perform in taking possession of the country; and for a considerable part of the time was stationed on shore, in command of a portion of the forces employed. The opportunities afforded him of becoming familiar with the character of the different races inhabiting the territory, as well as of its productions, climate, &c., were well improved; and his remarks, while they are written in the free and easy style of a sailor off duty, are interspersed with many observations of practical interest to those who are seeking information respecting the country, and, moreover, with thoughts bespeaking an acquaintance and a sympathy with the productions of the highest minds. By his talent in sketching from nature, he has been able to embellish pots are inverted over a heap of ore laid on an iron grate, beneath which a stream of water is made to pass. The edges of the pots being luted to the hearth in which the grate is fixed, a fire is made on the outside of the pots, and the dense mercurial vapor evolved from the ore, as it bakes, finding no vent save through the interstices of the grate, is condensed, and falls into its metallic form of quicksilver to the bottom of the little well or stream beneath, The vein is very rich, and the whole surrounding hills appear from their reddish color, as if they contained inexhaustible quantities of ore. The cavity in the mountain, of about 20 cubic feet, was at this time worked by two Indians, with picks, who threw out quantities of ore as fast as it could be broken up. This place has been resorted to by the Indians from time immemorial for vermillion, to apply to their interesting persons."

As no mention is made of other localities of this ore, it may be questioned whether other veins of it will be readily found—the red color of the surrounding hills not being very likely to be positive evidence of their produce, any more than the stains of the green carbonate of copper upon many of our the work with pleasing views of different towns and scenes on the coast and in the interior. We have, beside a valuable map of the Bay of San Francisco, a lithographic view of Monterey, the capitol of California; one of the quicksilver mines near San at Clara; one of Monte Diablo, from the Sacramento River; one of the capture of a bear by a Ranchero: a "Pui" Day; and Sutter's Fort, New Helvetia. Unfortunately, the sketch of the town of Yerba Buena, or San Francisco, was lost after the manuscript was prepared for the press.

The only published account of the mercury mine is to be found in this work. The depot of the ore is described as being situated in a secluded and romantic glen, about three leagues from San Jose. "The mine itself is on the top of a high mountain, and the ore is brought down on mules, the path being very precipitous. The ore is the red cinnabar, and the quality is extremely rich, yielding from 30 to 40 per cent. even by the rude and inadequate process which is adopted by the miners, although all the quicksilver might be easily disengaged from the ore. The process is as follows: large whaler's try-rocks indicate the proximity of veins of this metal. Still, the persevering energy of American explorers may open them, where the Indians have failed to discover them. Yet, if we are to believe the traditions current in nine-tenths of the towns of the United States, that the Indians used in former times to find lead ore near by—the traditions singularly accompanied with the same circumstances and stories in each—then are we sadly deficient in the mining skill of the ancient aboriginees; and their descendants too must have greatly degenerated, inasmuch as very few of them have any knowledge of lead ore, and probably none of them, unless taught by the whites, would have had an idea of the process of reducing it.

The gold mines of California were not discovered at the time of our author's visit. His remarks upon the soil, minerals, cattle, horses, timber and other vegetable productions, would seem to show that the country was rich enough without them. H.

* In Poggendorff's Annalen des Physick und Chemie, vol. xxxvii. page 203, are some interesting remarks on the formation of this variety of ore by M. Kindler. He noticed that the roots of rotten trees found in a ferruginous sand had gradually taken up the iron of this sand, so that after some time the sand had become colorless at the distance of an inch or so from the root.

M. Kindler was of opinion that an organic acid formed, which reduced the peroxide of iron and dissolved it in the state of the protoxide. By the influence of the air this changed into a basic insoluble salt, which precipitating, collected in the low marshes.—(Quoted in the Annales des Mines, Livraison iv. of 1846.)

The country around the ponds furnishing the ores above described is wholly composed of sands often highly ferruginous.

To the Editor of the American Railroad Journal:

I enclose a slip cut from the Lynchburg Republican, containing the proceedings of a meeting of the stockholders of the Lynchburg and Tennessee railroad, with the request that you publish them in your paper.

I also have an editorial from the Lynchburg Virginian. It is worthy of notice that the very large subscription of *five hundred thousand dollars* made to the works of the Lynchburg and Tennessee railroad company, was made by the citizens of an *inland town containing a population of* 3,938 *white inhabitants.* This fact shows conclusively that Virginia has awoke from her slumber, allowing no longer to permit her unrivaled natural advantages for great commercial distinctian, to remain unimproved. A SUBSCRIBER.

Lynchburg and Tennessee Railroad.

MEETING OF THE STOCKHOLDERS.

At a called meeting of the stockholders of the Lynchburg and Tennessee railroad company, held on Monday, the 30th day of April, 1849, at the Masonic Hall, in the town of Lynchburg—

The meeting was called to order, and on motion, Richard G. Morriss, Esq., was appointed Chairman and F. G. Morrison and Daniel A. Wilson, Jr., Secretaries.

The list of the stockholders being called, there was found to be present 878 shares entitled to 414 votes, and, by proxy, 612 shares entitled to 495 votes—making, in the aggregate, 1490 shares entitled to 909 votes, the whole number of votes which could legally be given being 1425.

The Chairman then appointed Messrs. Samuel Garland, Jeremiah Kyle, and Samuel McCorkle, a committee under the 4th By-Law, to examine the proxies, who, having performed that duty, reported them to be correct.

The President then read his Report to the meeting, explaing the object of the call, which, with sundry documents, was referred to a committee, consisting of the following gentlemen, viz:

Judge D. A. Wilson, Eli Phlegar, John G. Meem, Rev. John Early, Christopher Winfree, Samuel Garland, Richard G. Morriss, Robert J. Davis, J. M. Speed and Wm. T. Yancey, with instructions to make such report, upon the recommendations therein contained as to them might seem most expedient, to the meeting on to-morrow morning.

On motion of Rev. John Early—

Resolved, That, when this meeting adjourn, to adjourn to meet at 10 o'clock to-morrow morning.

The meeting then adjourned.

RICHARD G. MORRISS, Chairman.

F. G. MORRISON and D. A. WILSON, } Secretaries.

TUESDAY MORNING, 10 o'clock.

The stockholders having assembled, the Chairman called the meeting to order.

Judge Wilson, Chairman of the committee on the report of the President, presented a report, which was read and a motion made to adopt, on which the ayes and noes were called for, and it was carried unanimously—ayes 1073.

REPORT:

The committee, to whom was referred the communication of the President of the Lynchburg and Tennessee railroad company and the accompanying documents, have performed the duty assigned them, and after a careful consideration thereof, and the subjects embraced by them, have directed me to report the following preamble and resolutions:

Whereas the Legislature of Virginia, by an act, passed on the 6th day of March, 1849, entitled "An act authorising a subscription for the Commonwealth to the stock of the Virginia and Tennessee railroad company" has enacted certain provisions, by way of amendment, to the charter of the Lynchburg and Tennesse railroad company, which provisions are deemed by the meeting highly important and promotive of the welfare of this company, therefore,

1st. Resolved, That the stockholders of the Lynchburg and Tennessee railroad company do hereby accept the provisions of said act of Assembly, passed as aforesaid.

2d. Resolved, That the Board of Directors be instructed to make application to the Legislature of Virginia, at its adjourned session, to be held in the month of May, 1849, for the passage of an act, correcting a manifest error in the 2d section of an act, passed on the 6th March last, so as to make the subscription of the commonwealth three fifths of the company, as it was evidently designed to be, instead of the sum mentioned in the said sections.

DANIEL A. WILSON, Chairman.

On motion of Judge Wilson,

1. Resolved, That the Hon. Wm. C. Rives, Hon. John Y. Mason, Hon. Wm. S. Archer and Lieut. M. F. Maury, U. S. Navy, be appointed delegates to represent the Virginia and Tennessee railroad company, in the convention, to be held at Memphis, in the State of Tennessee, on the 4th of July next.

2. Resolved, That the Chairman of this meeting be requested to communicate the foregoing resolution to the gentleman therin named, with the request, that they will accept the appointment and be present at the convention if within their power.

On motion of Rev. Mr. Early,

Resolved, That the President's report be recorded and published.

On motion of R. E. Manson, Esq.,

Resolved, That the thanks of this meeting be tendered the Chairman for the able and faithful manner in which he has presided over it during its continuanee.

On motion, the meeting then adjourned.

RICHARD G. MORRISS, Chairman.

F. G. MORRISON, D. A. WILSON, } Secretaries.

May 1st, 1849.

Virginia and Tennessee Railroad.

APPEAL TO THE SOUTWEST.

Though the vote upon the act, authorising a subscription on behalf of the commonwealth to this important improvement, proves that it was very popular with the Legislature, yet the State subscription was made, and the corporate privileges were granted, after a most careful examination into the merits of the improvement, and upon condition, more stringent than are usually imposed upon works proposed to be constructed upon the joint stock of principle. With every disposition to be liberal to the south west, the Legislature wished to secure to the public and to the commonwealth, the fullest participation in the advantages of the work, it successful, whilst it guarded against contributing to the construction of a work, merely *local* in its character, by requiring the large preliminary subscription of seven hundred and fifty thousand dollars! From this severe and unusual test of their ability and sincerity, the advocates of the Virginia and Tennessee railroad have never shrunk. They never desired that the munificence of the State should be perverted to local or selfish purposes; nor did they doubt, for a moment, the ability and the inclination of the country interested in the road to comply with the conditions imposed upon them. That they were not mistaken, the result has, so far, established.—Lynchburg has shown that the declarations, made upon her behalf, were neither idly nor improvidently made. She has, with quiet resolution, complied with every assurannce, and nobly redeemed, to herself and the State, the pledge of devotion to the noble enterprise, in which she is so deeply interested. Her prosperous citizens have poured out the rich accumulations of industrious thrift at the demand of public duty, and have exhibited the rare example of a capacity to acquire by enterprise united with the disposition to contribute with a wise liberality.

Having, by the subscription of five hundred thousand dollars, or *two-thirds* of the whold amount necessary to receive the State subscription, performed her part of the compact, Lynchburg must now regard with interest the contributions of south western Virginia—the region most deeply and immediately concerned in the success of this work. We do not doubt that the subscriptions of that region of country will convince the seeptical friend, or obstinate foe, of internal improvement, that the mineral resources, agricultural capacity, and public interest in their improvement, have not been overrated by its advocates. We are confident that the south west will do its duty. Indeed, it is under obligations to do so, which may not be disregarded. The long delayed justice to the claims of that country has been ample. The State has provided for the construction of a turnpike road, and this has occasioned the expenditure of a large sum of public money, for the labor and provisions of the south west, whilst it has enhanced the value of its lands by making them more accessible. We hope that a portion of this will be added to the subscriptions of the large landholders and capitalists, that the State may reap the reward of having the money expended in the construction of one improvement contribute to the construction of another and more efficient one.

The remainder of the subscription is, we learn, less than 200,000, and this will be readily raised in the rich counties of Bedford, Roanoke, Montgomery, Pulaski, Wythe, Washington and Smythe, upon the line of the road and those adjacent. Indeed, it will require little more than $25,000 each from the counties upon the immediate line—a sum, insignificant in comparison with the ability of these counties, and the extent to which their interests will be promoted by the construction of the road. These counties will not disregard the example set them by the counties of East Tennessee, engaged in constructing another section another section of the same great line. South western Virginia holds the key of the greatest commercial thoroughfare in the United States. We are convinced that, unless the experience of similar improvements is vain, and the anticipations of scientific intelligence be an illusion, the intercourse of the South westen States of the Union and its territories—from Memphis to Mexico—will be carried and passed, in a rich and inexhaustible stream, along this magnificent improvement. That the north and south, that Asia and Europe, will adopt it as the medium for interchanging manufactures and merchandise, for the invaluable productions of the mine or the soil. That the Federal Government will employ the Virginia and Tennessee railroad, for the purpose of transporting the glittering results of its southern acquisitions, or the munitions of war which are to defend them, as the messenger by which to despatch the daily interchange of intelligence between the members of this great confederacy, and along whose rapid pathway the representative of distant and embryo States may forget, in the rapidity and comfort of his transit, the distance which separates him from his home.—When we think of the magnificent destinies of this improvement, we cannot believe that any portion of Virgihia can be indifferent to the success of the work. We know that the south west appreciates the liberality of the Legislature, the fidelity of her friends, and the deep stake she has in the result.—We are confident that her rich men will put down their thousands—those in more moderate circumstances will put down smaller sums, and that shares and half-shares will attest the *universal* approbation of the people. They will recollect that every dollar paid to a railroad reduces freight; gives them access to market at any time; gives them more for what they have to sell and reduces the price of what they have to buy; raises the value of their lands by bringing them into demand amongst emigrants—in a word, diminishes their labor and enhances their comforts; increases their wealth and reduces the cost of living. Such has been its invariable effect elsewhere—and such must be its result in South-western Virginia.

In giving place to the foregoing account of the proceedings of the shareholders of *Virginia and Tennessee railroad*, and to the eloquent appeal of its friends *to the south-west*, we are unwilling to withhold the expression of an opinion long entertained by us, and often expressed, that the line of this road is to become the most important link in the GREAT CENTRAL RAILWAY of the Union;—that line, which must directly conneot New Orleans and the south with Washington and the northern cities. From New York to New Orleans, a straight course is almost directly in the line of this road, and it will be but a few years before the city of New Orleans will move to connect with it in the valley of the Tennessee river.

We congratulate the friends of public improvement in Virginia, on the auspicious prospects of this great enterprise. Virginia has reached a turning point in her history, and if true to herself nothing can arrest or delay her onward march towards commercial greatness.

Railway Share List,

ON A PAR OF $100 ACCORDING TO THE LATEST SALES.—CORRECTED EVERY WEDNESDAY.

NAME OF COMPANY.	Length of line.	Length of branches.	Miles finished.	Cost of road and equipment.	Cost per mile.	Capital st'k paid in.	Debts more than surplus.	Ruling grade.	Earnings 1848.	Expenses 1848.	Net earnings 1848.	Rate of dividend in 1848.	Price of shares.	Remarks.
Atlantic and St. Lawrence	146	....	36	In progress.	.....	.....	.....	..	.....	.....	.....	.....	78 *a* 81	
Androscoggin & Kenneb.	55	....	6	In progress.	.....	.....	.....	..	.....	.....	.....	.....	70	
Albany and Schenectady.	16½	....	16½	$1,606,196	100,000	.....	.....	..	.....	.....	.....	1 5-9	82	
Auburn and Rochester...	78	....	78	2,644,520	34,000	.....	.....	..	175,922	.....	.....	8	86	
Auburn and Syracuse....	26	....	26	1,125,886	43,300	.....	.....	..	454,721	.....	.....	2 9-10	80 *a* 81	
Attica and Buffalo.....	31½	....	31½	821,313	26,000	.....	.....	..	172,185	.....	.....	4½	.....	
Alleghany Portage.....	36	....	36	.....	.....	.....	.....	..	150,959	.....	.....	.....	Leas'd to Western railroad.	
Albany and W. Stockb...	38½	....	38½	1,924,701	50,000	.....	.....	..	.....	.....	.....	.....		
Annapolis and Elkridge..	21	....	21	.....	.....	.....	.....	..	.....	.....	.....	.....		
Bangor and Oldtown....	11½	....	11½	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Boston and Lowell.....	25½	1½	27½	2,073,687	73,200	1,800,000	.....	10 up, 30 down.	461,339	268,707	192,631	8	116½	
Boston and Maine.....	74½	5	79½	3,571,832	45,000	3,249,804	249,715	47½	511,627	264,534	247,893	8½	105½	
Boston and Worcester...	44½	22	66½	4,650,295	70,000	4,500,000	255,144	40	716,284	406,303	310,080	8½	108½	
Boston and Providence...	41	6½	47½	3,934,706	63,800	2,893,300	26,878	37½	354,375	183,361	170,013	6½	91	
Bristol Branch.....	12	....	12	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Bost., Concord and Mont.	90	....	38	In progress.	.....	.....	.....	..	.....	.....	.....	.....	.....	
Berkshire.....	21	....	21	600,996	28,500	.....	.....	..	.....	.....	.....	7	.....	
Buffalo and Niagara.....	22	....	22	250,316	11,500	.....	.....	..	60,014	.....	.....	6 1-3	.....	
Buffalo and Black Rock.	3	....	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Baltimore and Susqueh'a.	36	....	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Beaver Meadow.....	26	....	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Buck Mountain.....	....	....	4	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Baltimore and Ohio...	....	....	178	13,136,940	61,900	.....	.....	..	1,468,828	805,530	663,198	.....	40 *a* 41	
Washington Branch.	....	....	31											
Frederick Branch...	....	....	3											
Calais and Baring.....	3	....	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Concord	34	....	34	.....	.....	1,350,000	.....	..	311,326	180,699	130,639	.....	124	
Cheshire	54	....	54	1,905,456	35,306	1,401,739	698,127	60	.....	.....	.....	.....	72	
Connecticut and Passump.	115	....	40	.....	.....	.....	.....	..	.....	.....	.....	.....	85	
Connecticut River.....	50	2	52	1,589,184	30,500	1,234,970	426,013	32	165,242	95,658	69,583	8	97½	
Cape Cod Branch.....	28	....	28	587,116	20,900	343,000	217,395	40	.....	.....	.....	.....	62	
Corning and Blossburgh..	....	....	40	.....	.....	.....	.....	..	18,069	.....	.....	.....	.....	
Cayuga and Susquehanna	29	....	29	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Camden and Amboy...	61	..	96½	3,200,000	33,000	.....	.....	..	.....	.....	.....	.....	130 *a* 135	
Trenton Branch.....	6½													
New Brunswick Br..	29													
Columbia.....	82	....	82	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Camden and Woodbury..	9	....	9	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Cumberland Valley.....	....	....	52	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Carbondale & Honesdale.	26	....	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Chesterfield.....	12	....	12	150,000	13,500	.....	.....	..	.....	.....	.....	.....	.....	
City Point.....	9½	....	9½	195,867	15,919	.....	.....	..	.....	.....	.....	.....	.....	
Central of Georgia.....	191	....	191	3,222,289	16,800	.....	.....	30	516,252	266,650	209,802	.....	80	
Central of New Jersey...	63	....	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Dorchester and Milton..	3½	....	3½	114,224	35,100	72,990	41,234	39	.....	.....	.....	.....	.....	
Detroit and Pontiac.....	25	....	25	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Eastern	54	19½	73½	.....	.....	.....	.....	55	.....	.....	.....	8	99½	
Essex (Salem to Law.)...	22½	....	22½	421,574	18,700	263,746	160,958	..	.....	.....	.....	.....	.....	
Erie and Kalamazoo.....	33	....	33	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Fall River.....	42	....	42	1,145,982	27,300	1,050,000	83,177	45	184,344	109,390	74,953	7½	86	
Fitchburgh.....	49½	6½	56	2,945,630	52,300	2,735,910	67,504	..	486,265	286,046	200,219	8½	112½	
Franklin.....	....	....	22	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Greensville and Roanoke.	21	....	21	284,115	13,530	.....	.....	..	.....	.....	.....	.....	.....	
Germantown Branch.....	6	....	6	.....	.....	.....	.....	..	.....	.....	.....	.....	88 *a* 90	
Gaston and Raleigh.....	96	....	96	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Georgia (Augusta to At'a)	171	....	210	.....	.....	.....	.....	40	477,052	267,175	.....	.....	121	
Athens Branch.....	....	39												
Harrisburg and Lancaster	37	....	37	.....	.....	.....	.....	..	.....	.....	.....	.....	88 *a* 90	
Hartford and New Haven	62	....	62	.....	.....	.....	.....	17	.....	.....	.....	.....	104 *a* 105	
Housatonic.....	74	....	74	.....	.....	.....	.....	..	.....	.....	.....	.....	86½	
Hudson and Berkshire...	31½	....	31½	818,983	26,500	.....	.....	..	.....	.....	.....	.....	.....	
Hazleton and Lehigh....	10	....	10	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Jackson and Brandon....	13	....	13	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Lexington and W. Camb.	6½	....	6½	252,680	38,900	.....	.....	55	.....	.....	.....	.....	.....	
Lowell and Lawrence....	12½	....	12½	283,248	22,650	.....	.....	45	.....	.....	.....	.....	.....	
Long Island.....	98½	....	98½	2,173,646	22,100	.....	.....	..	.....	.....	.....	.....	23½	
Lockport and Niagara...	23	....	23	221,000	9,700	.....	.....	..	.....	.....	.....	.....	.....	
Lewiston.....	3½	....	3½	33,673	10,300	.....	.....	..	.....	.....	.....	.....	.....	
Lykens Valley.....	16	....	16	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Little Schuylkill.....	23	....	23	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Louisa.....	50	....	50	474,137	9,482	.....	.....	..	.....	.....	.....	.....	.....	
Lexington and Frankfort.	29	....	29	450,000	15,600	.....	.....	..	.....	.....	.....	.....	.....	
Little Miami.....	84	....	84	1,513,402	18,000	.....	.....	..	.....	.....	.....	.....	.....	
Machiasport.....	8	....	8	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Morris and Essex.....	23	....	23	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mauch Chunk and R. Run	36	....	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mine Hill & Sch. Haven.	25	....	25	.....	.....	.....	.....	..	.....	.....	.....	.....	136	
Mount Carbon.....	7	....	7	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mt. Carbon & Pt. Carbon	2½	....	2½	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mill Creek.....	6	....	6	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Montgomery & W. Point	67	....	67	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	

Railway Share List,

ON A PAR OF $100 ACCORDING TO THE LATEST SALES.—CORRECTED EVERY WEDNESDAY.

NAME OF COMPANY.	Length of line.	Length of branches.	Miles finished.	Cost of road and equipment.	Cost per mile.	Capital st'k paid in.	Debts more than surplus.	Ruling grade.	Earnings 1848.	Expenses 1848.	Net earnings 1848.	Rate of dividend in 1848.	Price of shares.	Remarks.
Madison and Indianapolis	86	....	86	.....	.....	.....	.....	..	.....	.....	.....	.....	110	
Mad River and Lake Erie	102	....	102	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mansfield and Sandusky.	....	....	56	$1,106,121	19,700	.....	.....	..	.....	.....	.....	.....	.....	
Michigan Central.....	....	....	221	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Michigan Southern.....	....	....	70	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Tecumseh Branch.....	10	....	....	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Macon and Western.....	....	....	101	.....	.....	.....	.....	30	.....	.....	.....	.....	55	
Mississippi.....	....	....	30	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Nashua and Lowell.....	....	....	14½	525,063	36,200	525,000	.....	13	109,599	109,799	59,888	10	.....	
Northern (Ogdensburg)..	....	....	12	In progress.		.....	.....	..	.....	.....	.....	.....	.....	
" (Concord to Leb'n.)	....	....	69	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
N. Bedford and Taunton.	....	....	20	499,065	24,998	400,000	.....	40	136,151	96,220	39,225	6	80½	
Norfolk County.....	....	....	26	621,488	23,900	414,256	.....	35	.....	.....	.....	.....	.....	
N.Y. & N. Haven (14 mls.	Har	RR)	62	.....	.....	.....	.....	..	.....	.....	.....	.....	20	
New Haven Canal.....	....	....	28	.....	.....	.....	.....	..	.....	.....	.....	.....	90	
Norwich and Worcester..	59	7	66	2,187,829	33,100	.....	.....	..	218,073	170,297	.....	.....	.....	
New York and Harlem..	....	....	80½	3,579,567	44,600	.....	.....	..	.....	.....	.....	.....	37	
New York and Erie.....	....	....	200	.....	.....	.....	.....	..	.....	.....	.....	.....	58½	
New Jersey.....	....	....	29	.....	.....	.....	.....	..	.....	.....	.....	.....	61 *a* 62	
Newcastle & Frenchtown	....	....	17	.....	.....	.....	.....	..	.....	.....	.....	.....	107 *a* 108	
N. Orleans and Carrollton	....	....	5½	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Old Colony.....	37¼	7¾	45	2,080,903	46,200	1,601,415	683,648	40	227,350	139,592	87,757	6¼	80¼	
Oswego and Syracuse....	....	....	41	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Portland, Ports. and Saco.	51	....	51	1,350,000	26,400	.....	.....	..	.....	.....	.....	6	96½	
Peterboro' and Shirley...	12	....	12	208,311	17,300	.....	.....	..	.....	.....	.....	.....	.....	
Pittsfield and N. Adams.	18¾	....	18¾	447,755	24,000	.....	.....	66	.....	.....	.....	.....	.....	
Providence and Worcester	43½	....	43½	1,873,895	43,000	.....	573,058	26	193,844	83,889	109,954	.....	82½	
Paterson and Hudson R..	16½	....	16½	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Philadelphia and Trenton	28	....	28	.....	.....	.....	.....	..	.....	.....	.....	10	130 *a* 140	
Philad. Wilm. and Balt..	97	....	97	6,173,851	66,000	.....	.....	..	638,142	382,608	.....	.....	54	
Philadelphia City.....	6	....	6	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Philad. Germ. and Nor..	17	....	17	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Philadelphia and Reading	93	....	93	.....	.....	.....	.....	..	.....	.....	.....	.....	29¼	
Penn Township.....	2	....	2	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Petersburg.....	59	....	59	946,361	16,040	.....	.....	..	163,092	87,131	.....	.....	.....	
Ponchartrain.....	4½	....	4½	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Pt. Hud., Jack. and Clint.	28	....	28	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Rensselaer and Saratoga.	25	....	25	661,910	26,400	.....	.....	..	.....	.....	.....	.....	.....	
Ramapo and Patterson...	15	....	....	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Rich. Fred. and Potomac.	75¾	....	75¾	1,474,004	19,459	.....	.....	..	206,858	100,568	.....	.....	.....	
Richmond and Petersburg	22	....	22	877,484	39,886	.....	.....	..	.....	.....	.....	.....	.....	
Sullivan.....	28	....	28	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
South Shore.....	11½	....	11½	255,748	22,200	135,935	128,075	35	.....	.....	.....	.....	.....	
Stony Brook	13	....	13	246,659	19,000	216,829	29,189	40	.....	.....	.....	.....	73½	
Stonington.....	50	....	50	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Saratoga and Washington	40	....	40	948,372	23,700	.....	.....	..	.....	.....	.....	.....	.....	
Syracuse and Utica.....	53	....	53	1,968,036	37,060	.....	.....	..	.....	.....	.....	.....	.....	
Schenectady and Troy...	20½	....	20½	659,668	32,100	.....	.....	..	677,671	.....	.....	.....	.....	
Saratoga and Schenectady	22	....	22	331,036	15,000	.....	.....	..	47,025	.....	.....	.....	.....	
Summit.....	2	....	2	.....	.....	.....	.....	..	57,018	.....	.....	.....	.....	
Schuylkill Valley.....	14	....	14	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Shamokin.....	22	....	22	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Swatara	4	....	4	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Seabord and Roanoke...	....	....	76½	1,519,140	20,460	.....	.....	..	.....	.....	.....	.....	.....	
S. Carolina Main Stem	136	....						..						
Columbia Branch...	....	68½	242	5,943,678	24,500	.....	.....	..	800,073	308,802	401,271	.....	.....	
Camden Branch.....	....	37½						..						
Sangamon and Morgan..	53	....	53	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Taunton Branch.....	....	....	11	305,085	27,600	250,000	.....	..	108,101	90,485	17,615	.....	.....	
Tonawanda	43½	....	43½	974,865	22,400	.....	.....	..	218,301	.....	.....	.....	.....	
Troy and Greenbush.....	6	....	6	273,625	45,900	.....	.....	..	60,055	.....	.....	.....	.....	
Tuckahoe & James River	4¼	....	4¼	69,322	14,999	.....	.....	..	.....	.....	.....	.....	.....	
Tallahasse and Port L...	....	....	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Tuscumbia and Decatur.	....	....	44	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Utica and Schenectady...	78	....	78	3,161,688	40,500	.....	.....	..	795,239	.....	.....	10	120 *a* 121	
Vermont and Mass.....	69	....	69	.....	.....	.....	.....	..	.....	.....	.....	.....	45½	
Vermont Central.....	121	....	69	In progress.		.....	.....	..	.....	.....	.....	.....	53½	
Vicksburg and Clinton...	....	....	46	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Western.....	117¼	....	117¼	7,975,452	67,700	.....	.....	..	1,332,068	.....	.....	8	105	
West Stockbridge.....	2¾	....	2¾	41,515	15,000	.....	.....	..	.....	.....	.....	.....	.....	
Worcester and Nashua..	45	....	45	.....	.....	.....	.....	..	.....	.....	.....	.....	52	
Wrightsv, York & Gettys.	....	....	13	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Whitehaven and Wilkes.	....	....	20	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Williamsport and Elmira	....	....	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Westchester Branch.....	....	....	10	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
West Feliciana.....	....	....	24	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Winchester and Potomac.	....	....	32	509,415	15,919	.....	.....	..	.....	.....	.....	.....	.....	
Wilmington and Weldon	....	....	163	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Westminister Branch....	....	....	10	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Western and Atlantic...	....	....	100	In progress.		.....	.....	..	.....	.....	.....	.....	.....	
York and Maryland Line.	....	....	21	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	

AMERICAN RAILROAD JOURNAL.

Saturday, May 26, 1849.

☞ Mr. Hodge, Assistant Editor of this paper, being about to visit Lake Superior, will collect for publication matters of interest relating to the railroads and steamboats on the route, as well as of the mines he will visit. We trust that his exertions will be the means of extending the influence of the Journal at the west, as also of adding to our knowledge at the east, of the resources and facilities of travel in that region. We bespeak for him such attention and information as may be the object and for the interest of companies to impart. His professional services at the mines may be secured by letter addressed to him at either of the Post Offices on the Lake within one month.

Improvement for Lessening Friction on Railroads.

Every one who has ridden on a railway, has felt annoyed by the ceaseless jar or trembling of the car, and the perperpetual "*click*" "*click*" "*click*" of the wheels, as they strike upon the rigid points at the joints or ends of the rails.

In the last number of our paper we alluded to an improvement patented by J. E. Smith, Esq., of this city, to remedy the evil referred to, by placing a lining of vulcanized India rubber under the rail.—The advertisement then referred to, will be found in this week's paper, together with a drawing illustrating the mode of its use, which was not in season for our last issue. The attention of railroad directors and other parties interested in railroads, is invited to this matter.

Railway Progress.

Our share list, in the present number of the Journal, embraces an aggregate of 6,674¼ miles of railway in actual operation in the United States. The completion of the *Michigan Central railroad* to the shores of Lake Michigan, at New Buffalo, gives a line of 221 miles from Detroit, or 75 miles more than has been given in any aggregate published.—The *Norfolk County railroad*, in Massachusetts, is just opened to Blackstone, 26 miles, and has recently for some as yet unexplained cause, assigned its property. Both of these roads are included in the list.

We shall soon have to add to it the *Naugatuck railroad*, in Connecticut, which is about to be opened to Humphreysville, and will be opened to Winsted, 57 miles, during the summer, and the *Galena and Chicago railroad*, which is now run upon for some 12 miles from the latter city, and several others rapidly advancing towards completion.

Friends of the different railways will do us a favor by sending us the latest information in regard to their roads.

Railroad Iron.

The Canada, Capt. Judkins, which arrived on Thursday last week brought advices from Liverpool to the 5th inst. The news from England show a decline in metals generally. Scotch pig, No. 1 Gartsherrie can be bought for 47 and 48s. Rails are dull of sale at £5 15s. in Wales.

In the United States, *four* mills only are now engaged in making rails, of the *sixteen* which were got up with this view in 1846-7.

Messrs. Cooper & Hewitt are making about *three hundred* tons per week, at the *Trenton Iron Company's Works*. Messrs. Reeves, Buck & Co. are running both their mills, the *Phœnix Iron Works*, on the Scuylkill, and the *Safe Harbor Iron Works*, on the Susquehanna. The *Tredegor Works*, at Richmond, are also making a strap rail for the Richmond and Danville Railroad.

All the other mills are lying idle. New parties have recently purchased into the *Montour Company* at Danville, and their mill is to be put at work making rails the present year.

Such is the preference now given to American iron, by the best informed railway companies, that they readily pay from $7 to $10 per ton for rails made at the mills above named more than the price asked for ordinary English rails in this market.

If sufficient protection existed against foreign competition, to enable our *sixteen* rail mills to resume operations, the price of iron might be kept at uniform rates year after year, and the price would never long remain ashighas $60 a ton. In two years we saw it decline from $80 to $40 per ton. The owners of mills prefer to keep them in operation rather than to suffer them to lie idle when prices will barely remunerate the expense of working them.

By referring to our advertising columns our readers will see that the Massachusetts Rolling Mill, at South Boston, is for sale.

Improvements in the Make of Iron.

Under this head, in the number of this Journal for April 14th of the present year, allusion is made to a small blast furnace, producing an unusual yield, in Yorkshire, England, which has excited no little attention among those interested in this business.

A friend engaged in the manufacture of Iron in this country, saw last year the furnace alluded to, and has favored us with a short account of it, the accuracy of which may be relied upon.

The furnace belongs to Messrs. Yates & Co., and is situated 12 miles from Chesterfield. It is 27 feet high, instead of 20, as reported in the previous number of the Journal, and across the widest diameter of the interior is 14 feet. Its shape is much like that of an egg, standing on its little end. The height of its hearth, if it can be said to have any, can hardly be defined; its width across the tweres is 4 feet.—The tunnel head is 3 feet in diameter. The charges are introduced through two flues passing into the furnace below the tunnel head, like the gas flues at many of our furnaces, only of larger size. It has 8 tweres, but only four were in use, the nozzle of these was 3 inches in diameter; pressure of the blast 27 ounces to the square inch.

The blowing apparatus consists of two fans attached to the shaft of the engine; their revolutions were 2,000 a minute; but this arrangement was to be replaced by blowing cylinders.

The ores were those of the coal formation, poor argillaceous ores, yielding about 30 per cent. of iron. The charges were from 35 to 40 every 12 hours, each charge consisting of 4 barrels of coke, and 4 barrels of ore and flux mixed. The yield is about 100 tons of pig iron per week.

With such a result from a furnace so totally different in form from those in common use, the high importance often attached to slight differences in the angle of the slopes of the boshes, or to a little greater or less diameter in proportion to the height of the stack, cannot but seem idle; and the true secret of success will no doubt ultimately be found to consist rather in correct proportions of the materials used, with allowance of plenty of room for the reduction of all the ore, and a sufficiency of blast carefully regulated, and *as little interrupted as possible*. H.

Railroad Collision Suit.

Supreme Judicial Court, Plymouth County, Massachusetts; May term, 1849. Burrows *vs.* Fall River Railroad. This was an action on the case, in which the plaintiff claimed of the defendants damages for injuries to himself and his horse and carriage in consequence, as he alleged, of the neglect of the servants of the defendants, in not ringing the engine-bell in season to give notice of the approach of the train, when near a crossing of the railroad over the highway, at a place about two miles from Myrick's Corner, so called, in Taunton. There was much conflict of testimony as to whether the bell was or was not rung; and if rung, whether it was rung eighty rods before reaching the crossing, as by law they were bound to do it. This was the chief point of contest in the case, and much testimony was introduced on both sides.

The presiding Judge ruled as matter of law—That it was incumbent upon the plaintiff to prove and to satisfy the jury affirmatively—

1st. That he used ordinary care and prudence in driving his horse, and in his conduct and judgment, on his part:—

2d. That the defendants or their servants were guilty of negligence in the matter alleged in the plantiff's declaration—viz: in not ringing the engine-bell as required by law:—

3d. That in consequence of such negligence, (if they found negligence on the part of the defendants or their servants,) the accident and injuries happened to the plaintiff. And that if the plaintiff failed to prove and satisfy the jury in any one of these particulars, their verdict must be for the defendants.—If, on the other hand, these three points were proved to their reasonable satisfaction, they would give to the plaintiff their verdict, with such damages as he had proved he had sustained in consequence of the conduct of the defendant or their servants.

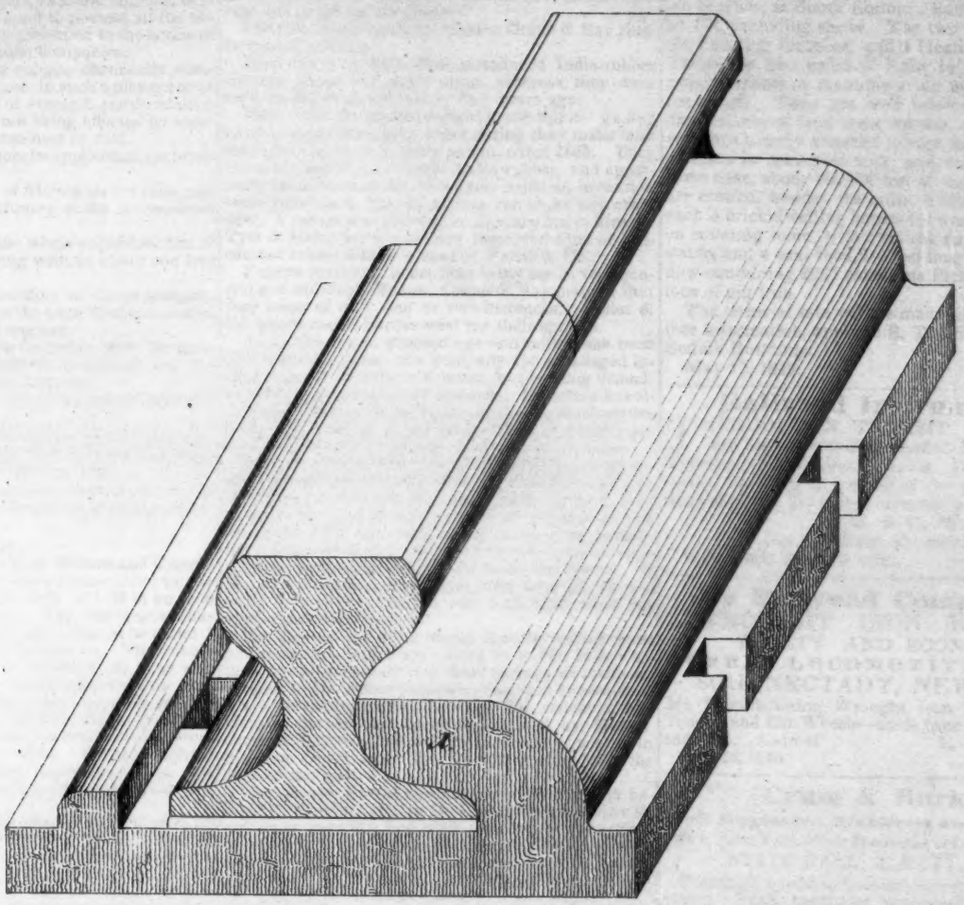
The jury, after being out through the afternoon and all night, were discharged by the court at eight o'clock Thursday morning, not being able to agree.

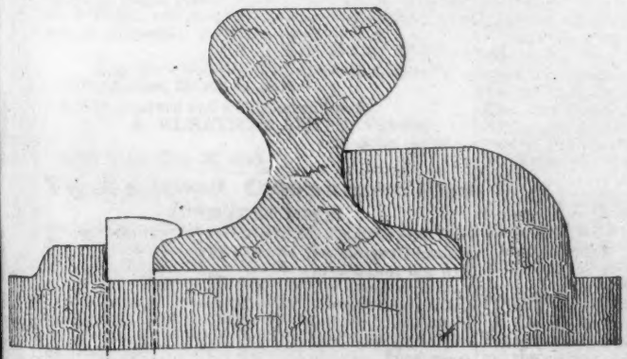
It was understood that they were—three for plaintiff and nine for defendants. H.

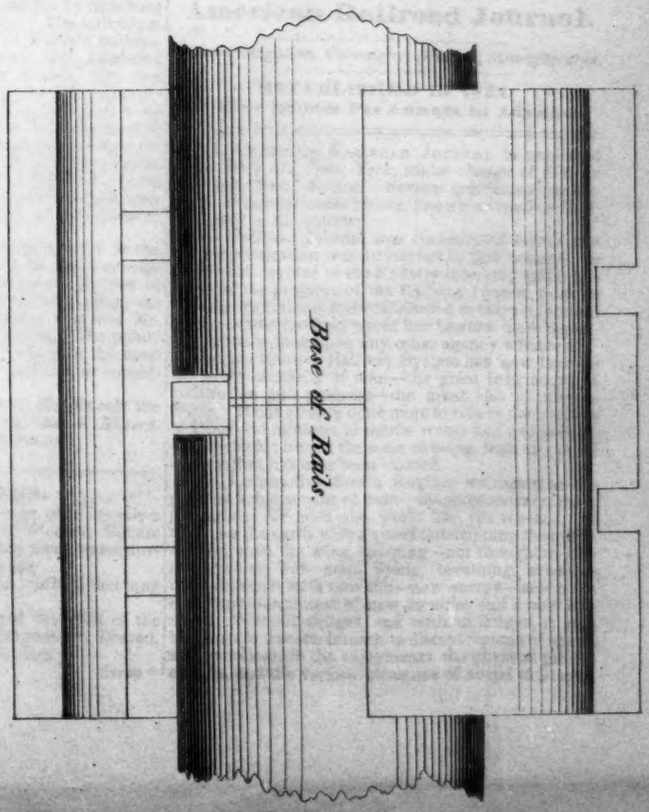
The London correspondent of the *Philadelphia North American*, in a recent letter thus speaks of Col. Baker's improvement of the steam boiler:

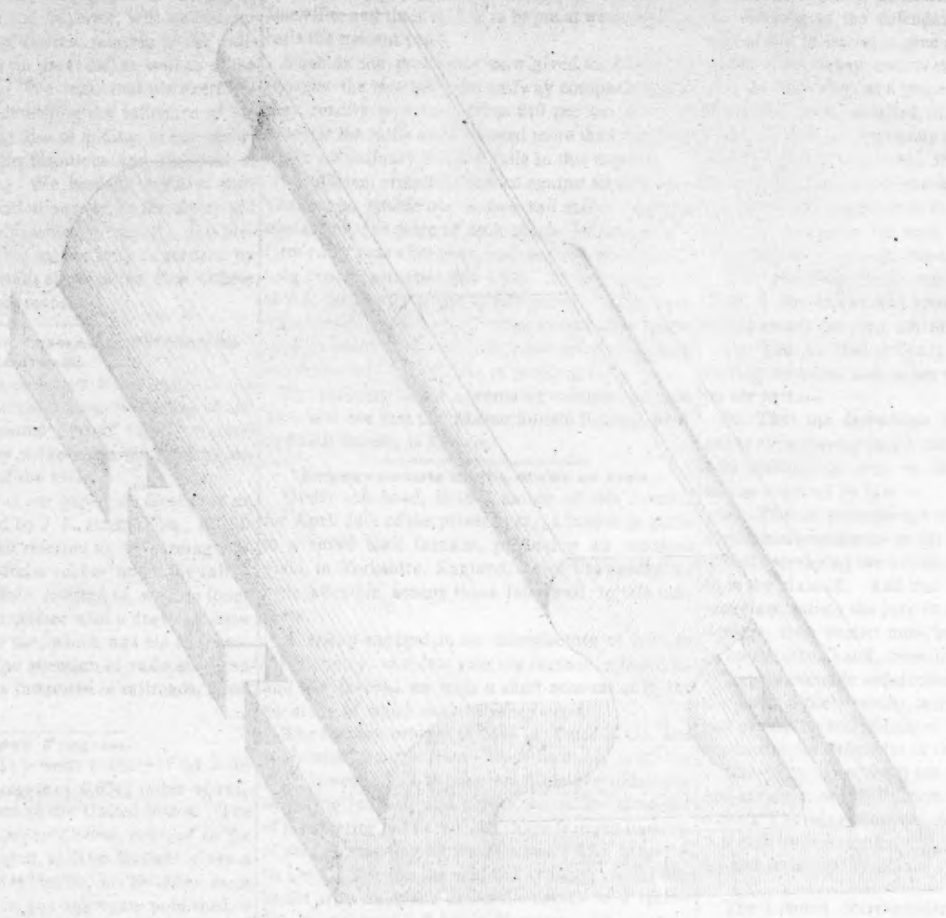
The American invention recently introduced in England is likely to prove very valuable and highly profitable to the inventor, Henry F. Baker, Esq., of Boston, who has patented in this country a steam boiler furnace, which is not only capable of effecting a great saving of fuel, but an almost total consumption of smoke, which is vastly important. The first furnace introduced here was erected last year at the East London Water Works, when Mr. Wicksteed, the well-known engineer, made a most flattering report, showing that Bakers furnace saved 37 per cent. of fuel. Another furnace has recently been erected at the extensive works of Hoyle & Sons, of Dukinfield, which gives much satisfaction. There is also one at Hargreaves, Brothers, Broad Oak print works at Accrington, and Col. J. Amory, the agent in this country for these furnaces, has several orders to supply this valuable invention to other large establisnments.

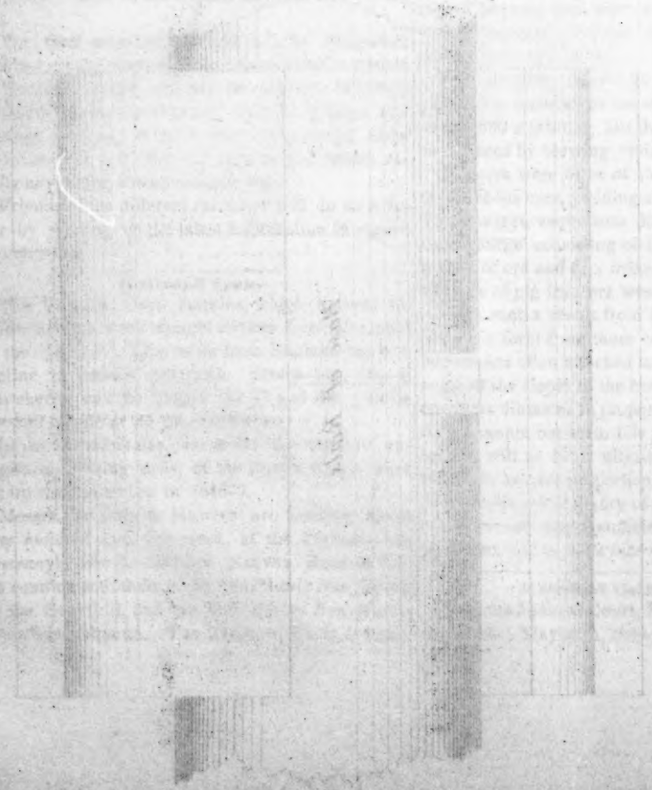
J.E. Smith's improvement for lessening Friction on Rail Roads.

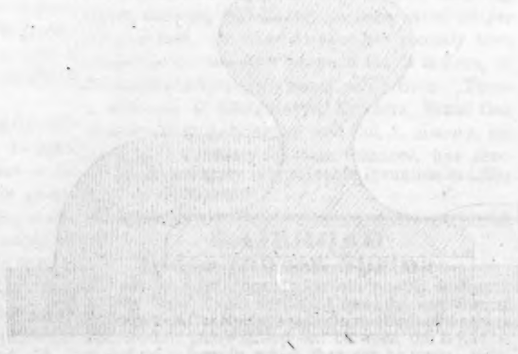












Improvement for Lessening Friction on Railroads.

THE Improvement sometime since perfected for lessening the friction on rails, cars and engines, having been fairly tested, and found to possess all the advantages anticipated, is now presented to the notice of parties connected with railroad companies.

The article used is India-rubber, chemically combined with a metalic substance, in such a manner as to give it a remarkable degree of strength and durability, and the peculiar quality of not being affected by abrasion, or the extremes of either heat or cold.

The advantages derived from its application are briefly as follows:

1st, A sensible lessening of friction on the rails, and of wear and tear to the machinery of the locomotives and cars.

2d, A general benefit to the whole superstructure of the road, by the trains passing with an easier and less jarring action.

3d. A greater degree of comfort to the passengers, owing to the exemption from the usual loud and annoying rattling of the cars and engines.

4th, An increased speed to the trains, with the same power, arising from the uniform steadiness and decrease of friction to the rails, cars, etc.

And lastly, a material saving in the annual expenditure for repairs.

A drawing, illustrating the application of India-rubber to this purpose, will be found in the American Railroad Journal, under date of May 26, 1849.

The annexed certificate, among others in the hands of the patentee, will explain the nature of this improvement.

"J. ELNATHAN SMITH, Esq.,

Dear Sir: In relaying the New Orleans and Carrollton railro ad, I applied Vulcanized India-rubber in the Chairs, under the *joints* of the rails, of 1-10 of an inch thick, with the happiest result. The road thus laid has been in constant daily use since August last, and I cannot perceive the least deterioration. The rubber acts admirably as a *wedge*, in the way I use it, as well as a perfect preventive of the battering down of the ends of the rails. It also makes the road unusually smooth —for in riding over it I have not been able to detect the joints; and I have had the assertion of several observers of such matters to the same effect. We are delighted with it here, and think it a very important simple, and cheap acquisition in the permanent maintenance of railroads.

The annexed sketch of the chair I use, will give an idea how the rubber acts as a wedge. They weigh 13 lbs. and are 7 inches square—are accurately cast to one size, and when in their places, ready for the rails, I place a piece of the rubber 1-10 of an inch thick thereon. The width of the base of the rail, and the length of the chair is 3½ by 7 inches. The rail is then forced in *sideways*, which, owing to there being but 1-16 of an inch space for 1-10 inch thickness of rubber, requires considerable pressure; consequently, the elasticity keeps the rail tight up to the clip of the chair A. I have closely observed the joints when the engine passed over them, but could not detect any depression of the rails separate from each other.

I find that the cost for the rubber will be about 7 cts. per *joint*, which for 21 feet rails, will be about $35 per mile, *exclusive of the patent right.*

The rubber I use is of excellent quality, and made in pieces of about 20 to 30 yards long, and 25 inches wide, (1-10 of inch thick,) and weighs about 4 lbs. to the yard in length. I cut 7 pieces in the width, consequently 7 inches in length makes 7 pieces or 7 yards, weighing about 28 lbs., will give 252 pieces, or half a mile of road with 21 feet rails. I am respectfully yours,

JOHN HAMPSON,

Eng. New Orleans and Carrollton Railroad."

New Orleans, March 14, 1849.

Orders received and full information by

J. ELNATHAN SMITH, Patentee,

22 John street,

New York, May 26, 1849.

To Railroad Companies and Contractors.

FOR SALE.—Two Locomotive Engines and Tenders, at present in use on the Beaver Meadow Railroad, being too light for their coal trains, but well calculated for either gravel or light passenger trains.

They weigh, in running order, about 8 tons each—having one pair of driving wheels 4 feet diameter, 4 truck wheels 30 inches diameter, with cylinders 10 in. diameter, and 18 inches stroke of piston. Tenders on 4 wheels. Address JAMES ROWLAND,

Prest. Beaver Meadow Railroad & Coal Co.,

Philadelphia.

or, L. CHAMBERLAIN, Sec'y,

at Beaver Meadow, Pa.

May 19, 1849. 20tf

Patent India-rubber Springs.

FULLER & CO. beg that parties interested in the use of these Springs will not be misled by ex parte statements, but will examine the actual Patents and judge for themselves.

The statements made by Messrs. Crane & Ray shall be treated seriatim.

They claim to have first introduced India-rubber Springs about two years since, whereas they were used by Fuller & Co. nearly four years ago.

They claim the exclusive right to use Sprin gs.hey have no right whatever; every spring they make is an infringement upon Fuller's patent, dated 1845. They claim the sole right to make India-rubber, and apparently think because Mr. Goodyear made an invention some years since, that no person can make any other now. A patent was *granted in January last* to Messrs. Tyer & Helm for a new and improved kind of Vulcanized rubber which is used by Fuller & Co.

Fuller's springs it is needless to say are in very general use, although Messrs. Crane & Ray pretend that they know of only one or two instances. Fuller & Co. guarantee all parties who use their springs.

As to the Legal proceedings—an action has been commenced against one company for an alleged infringement of Goodyear's patent, but is being defended with every prospect of success. An action has also been commenced by Fuller & Co., against parties using Ray's spring, for an infringement of Fuller's patent, and *this will be done in every case of violation.*

In every case in which Fuller's spring has been applied, it has been pronounced superior to that made by Mr. Ray, and this fact induces Messrs. Crane & Ray to claim the right of using it. They attempt to lead the public from the real question at issue, by producing a Deposition as to Mr. Ray having *tried to make* a spring which Mr. Fuller *did make* and patent. If Mr. Ray did invent a spring in 1844, why did he not apply for a patent, and not wait until 1848, when his application was rejected!

Mr. Knevitt has never stated that the springs were put on by him, which are refered to in Mr. Hale's article, but he does state that those springs are made according to Mr. Fuller's specification, and consequently are an infringement upon it. The article of Mr. Hale in the Boston Advertiser, quoted by Messrs Crane & Ray, was followed immediately by a letter in the same paper, from Mr. Knevitt, setting forth the facts of the case.

The springs refered to were put on by Mr. Ray before Mr. Knevitt came to the United States; when he arrived he gave Mr. Ray notice not to proceed further in making or vending such springs; Mr. Ray then said he did not wish to infringe, and would not continue to do so, and he then contrived an India-rubber and Air spring which totally failed.

In the selection of their first agent, Fuller & Co. were particularly unfortunate, and their reason for adverting to it is simply that it may tend to throw light on subsequeut transactions, and furnish a reply to the remark, "that this opposition was invited by their own delay in getting the thing to work." The individual refered to undertook the agency for Fuller's springs, and left Liverpool on the 1st January, 1847, furnished with a complete set of drawings, models, etc., and every necessary instruction to make arrangements respecting the supply of material, and to have it at work within the time limited by law; but *from that hour to the present, not a single communication has been received from the said agent.* Some of their models, however, they have traced into the hands of parties now seeking to invade their rights, and by whom they understand they have been exhibited as speeimens of their own invention.

The superiority of Fuller's spring is implied in the offer of the New England Car Co. to make springs upon his principle (now that a preference is given to the disc and plate form) and this notwithstanding the fact, that Fuller & Co. have a patent, and that Mr. Ray's application for one was rejected. The public can judge which company's course has been the most honorable, or whose statements are entitled to consideration.

Fuller's springs can be obtained of *Mr. Knevitt* the Agent, at 38 Broadway New York, and of *Messrs. James Lee & Co.*, 18 India Wharf, Boston.

May 26, 1849.

Large Pumps.

THE Boston Water Commissioners offer for sale a large number and variety of Wooden Square Pumps, used in clearing excavations from water during the construction of the Aqueducts.

Also Two Large Screw Pumps, each 25 feet long and 2½ feet in diameter.

For further particulars, enquire at the office of the Water Commissioners, 119 Washington St., Boston, or of E. S. Chesborough, West Newton.

May 19, 1849. 6w20

Rolling Mills for Sale.

THE MASSACHUSETTS IRON COMP'Y offer for sale their two Mills, situated on Boston Harbor, at South Boston. Each Mill is 214 f- by 174, including sheds. The two contain 15 double Puddling furnaces, and 9 Heating Furnaces.—There are two trains of Rolls in each Mill, altogether capable of manufacturing 1000 tons of rails per month. They are well located for the receipt and delivery of iron from vessels, with every convenience usually attached to such an establishment.

There is connected with, and will be sold at the same time, about 400,000 feet of upland, on which are erected, besides the mills, 4 blocks, containing each 4 brick dwelling houses for workmen: a wooden counting room with dwelling adjoining, a horse stable, and a coal shed 210 feet long by 70 feet wide now containing 2967 chaldrons Pictou coal and 933 tons of pig iron.

The terms of sale will be made liberal. For further information, apply to B. T. REED, Treasurer, Suffolk Buildings.

May 17, 1849.

Railroad Instruments.

THEODOLITES, TRANSIT COMPASSES, and Levels, with Fraunhoffers Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by

E. & G. W. BLUNT,

No. 179 Water St., cor. Burling Slip.

New York, May 19, 1849.

To Railroad Companies.

—WROUGHT IRON WHEELS—

SAFETY AND ECONOMY.

NORRIS' LOCOMOTIVE WORKS,

SCHENECTADY, NEW YORK,

Are Manufacturing Wrought Iron Driving, Truck, Tender, and Car Wheels—made from the best American Iron. Address E. S. NORRIS.

May 16, 1849.

Cruse & Burke,

Civil Engineers, Architects and Surveyors,

Office, New York State Institution of Civil Engineers,

STATE HALL, ALBANY., N. Y.

Drawings, specifications and surveys accurately executed. Pupils instructed theoretically and practically at a moderate premium.

May 26, 1849.

American Railroad Journal.

Steam Navigation, Commerce, Mining, Manufactures.

ESTABLISHED IN 1831.

At Five Dollars Per Annum in Advance.

THE AMERICAN RAILROAD JOURNAL is published at 54 *Wall St., New York*, under charge of HENRY V. POOR, Esq., Editor. Several gentlemen are engaged as regular contributors, known as leading Rail road men in the country.

The Railroad Journal was commenced before any similar publication was attempted in this country, or elsewhere, devoted to the Railway interest; and it has recorded the progress of the Railway System from its humble beginnings, and contributed to carry it forward till the whole civilized world has become more dependent upon it than upon any other agency whatever.

The Locomotive Railway System has now become the great necessity of man—the great instrument of civilization and progress—the great idea of modern times. It has already done more to relieve the burdens of labor—to minister to man's wants and necessities, and to elevate him in the scale of being, than any other agency that has ever been exerted.

The Locomotive Steam Engine, we regard as the greatest achievement of man—the most extraordinary instrument for good the world has yet reached. It traverses the earth with a speed outstripping the swiftest bird upon the wing, carrying—not thought or language alone, but—man, living, breathing, sensitive man—instinct with new life—new energy—new powers, conscious almost of new faculties and a new creation. Without danger, and without fatigue, it enables man to transfer himself to distant regions of space, and participate in the enjoyments, the physical gratifications, and the various pleasures of social existence,

n a manner heretofore unknown. It gives to every community the productions, and ideas of every other —disclosing or creating new sources of enjoyment, and multiplying, to an infinite degree, every susceptibility to pleasurable emotion.

It will not have achieved its highest work till it has harmonised political differences, and elevated all men to the highest social condition of which they are capable. By making distant places one neighborhood, it practically prolongs our being, not to one, but to a fourfold degree, enhancing, in the same ratio, all the joys of existence.

Whoever, therefore, labors in this field, has more than the ordinary rewards for exertion. He is working for humanity—for progress—for the highest good of his race. Profoundly impressed with these views, we intend, in accordance with their spirit to conduct the Journal.

The history, the influence, and the improvements of the railway, with statistics, showing its extent, cost and productiveness, as well as a careful inquiry into its management; scientific discoveries, the mechanic arts, steam navigation, commerce and mining—especially in connection with locomotion and the progress of industry—are embraced in the range of our labors.

Under the mining head, the readers of the Journal will find a series of articles on the *Iron Ores and Iron Manufacture* of the United States, from the pen of J. T. Hodge, Esq., who is an Assistant Editor of the Journal, for the department of Mining and Metallurgy.

Mr. Hodge has for many years been engaged in the preparation of a work on the Iron Ores and Iron Manufactures of the United States, embracing descriptions in detail of the different localities of ore, the expense of working different mines, the structure and location of the several blast furnaces and the results of their working. This work is to be published in a condensed form in the Journal, in a series of weekly papers, conveniently arranged under appropriate heads, with statistical tables of different districts, and such plans and drawings as may be found desirable.

Besides this work on iron, Mr. Hodge is to furnish to the Journal detailed accounts of the *Copper and Lead Mines of the United States*, which have been carefully examined by him, with information on mining subjects generally.

These works will be found indispensable to all parties engaged in mining and the iron manufacture.—This is the first attempt yet made to give, in an elaborate and practical form, a scientific work on the iron ores, the iron manufacture, and mining resources of the whole country.

Gen. C. T. James, of Providence, has also been engaged as an Assistant Editor of the Journal. He will furnish to the Journal full accounts of the progress of mechanical invention, and of the condition of the manufacturing interests of the country. His reputation as a practical mechanic, a successful manufacturer and an able writer, are already well known to the public. He will also furnish valuable information touching other branches of industry and of business.

Great Britain owes her present commercial and political importance more to the mechanical invention of her people than to any other cause.

American skill, industry and enterprise, are giving us a distinguished rank in the community of nations. To these interests, and to the Railway, as the most valuable of all, this Journal will be earnestly devoted.

J. H. SCHULTZ & CO.

ENGINEERS.

Arrowsmith, A. T.,
Buckfield Branch Railroad, Buckfield, Me.

Berrien, John M.,
Michigan Central Railroad, Marshall, Mich.

Clement, Wm. H.,
Little Miami Railroad, Cincinnati, Ohio.

Fisk, Charles B.,
Cumberland and Ohio Canal, Washington, D. C.

Felton, S. M.,
Fitchburgh Railroad, Boston, Mass.

Ford, James K.,
New York.

Gzowski, Mr.,
St. Lawrence & Atlantic Railroad, Montreal, Canada.

Gilbert, Wm. B.,
Rutland and Burlington Railroad, Rutland, Vt.

Grant, James H.,
Nashville and Chattanooga R. R., Nashville, Tenn.

Harry, P.,
Binghamton, New York.

Holcomb, F. P.
Southwestern Railroad, Macon, Ga.

Higgins, B.
Mansfield and Sandusky Railroad, Sandusky City, O.

Johnson, Edwin F.
New York and Boston Railroad, Middletown Ct.

Latrobe, B. H.,
Baltimore and Ohio Railroad, Baltimore, Md.

Morton, A. C.,
Atlantic and St. Lawrence Railroad, Portland, Me.

McRae, John,
South Carolina Railroad, Charleston, S. C.

Nott, Samuel,
Lawrence and Manchester Railroad, Boston,

Reynolds, L. O.,
Central Railroad, Savannah, Ga.

Roberts, Solomon W.,
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Robinson, James P.,
Androscggin & Kennebec Railroad, Waterville, Me.

Schlatter, Charles L.,
Northern Railroad (Ogdensburg), Malone, N. Y.

Stark, George.,
Bost., Con. and Mont. R. R., Meredith Bridge, N. H.

Trimble, Isaac R.,
Philad., Wil. & Baltimore Railroad, Wilmington, Del.

Tinkham, A. W.,
United States Fort, Bucksport, Me.

Thomson, J. Edgar.,
Pennsylvania (Central) Railroad, Philadelphia.

Whipple, S.,
Civil Engineer and Bridge Bullder, Utica, N. Y.

Williams, E. P.,
Auburn and Schenectady Railroad, Auburn, N. Y.

Williams, Charles H.,
Milwaukie, Wisconsin.

BUSINESS CARDS.

James Laurie, *Civil Engineer,*
No. 23 Railroad Exchange, Boston, Mass.
Railroad Routes explored and surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures.
October 14, 1848. 6m*

James Herron, *Civil Engineer,*
OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,
PATENTEE OF THE
HERRON RAILWAY TRACK.
Models of this Track, on the most improved plans, may be seen at the Engineer's office of the New York and Erie Railroad.

IRON.

Pig and Bloom Iron.

THE Subscribers are Agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniata Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by
A. WRIGHT & NEPHEW,
Vine Street Wharf, Philadelphia.

Railroad Iron.

RAILROAD IRON & LOCOMOTIVE TIRES imported to order, and constantly on hand, by
A. & G. RALSTON,
4 South Front St., Philadelphia.

Railroad Iron.

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron. THOMAS B. SANDS & CO.,
22 South William street,
February 3, 1849. New York.

Railroad Iron.

100 Tons 2½ x ⅝, | 30 Tons Railroad.
All fit to re-lay. For sale cheap by
PETTEE & MANN,
228 South St., New York.
May 16, 1849.

Railroad Iron.

THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention. J. F. WINSLOW, *President*
Troy, N.Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N.Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.
November 6, 1848.

Railroad Iron, Pig Iron, &c.

600 Tons of T Rail 60 lbs. per yard.
25 Tons of 2½ by ½ Flat Bars.
25 Tons of 2½ by 9-16 Flat Bars.
100 Tons No. 1 Gartsherrie.
100 Tons Welsh Forge Pigs.
For Sale by A. & G. RALSTON & CO.
No. 4 So. Front St., *Philadelphia.*

Railroad Iron.

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phœnix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehannah river; which two establishments are now turning out upwards of 1800 tons of finished rails per month.

Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.
REEVES, BUCK & CO.,
45 North Water St., Philadelphia.
March 15, 1849.

Railroad Iron.

THE Undersigned offer for sale 3000 Tons Railroad Iron at a fixed price, to be made of any required ordinary section, and of approved stamp.

They are generally prepared to contract for the delivery of Railroad Iron, Pig, Bar and Sheet Iron—or to take orders for the same—all of favorite brands, and on the usual terms. ILLIUS & MAKIN.
41 Broad street.
March 29, 1849. 3m.13

Railroad Iron.

THE NEW JERSEY IRON CO'S WORKS AT Boonton, are now in full operation, and can execute orders for Railroad Bars of any required pattern, equal in quality to any made in this country. Apply to DUDLEY B. FULLER, *Agent,*
139 Greenwich street.
New York, October 25, 1848.

Railroad Iron.

THE TRENTON IRON COMPANY ARE NOW turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to
COOPER & HEWITT, *Agents.*
17 Burling Slip, New York.
October 30, 1848.

Coal.

CUMBERLAND SEMI-BITUMINOUS COAL superior quality for Locomotives, for sale by
H. B. TEBBETTS,
No. 5½ Pine St., New York.
May 12, 1849. 1m19

India-rubber for Railroad Cos.

RUBBER SPRINGS—*Bearing and Buffer—Fuller's Patent—Hose* from 1 to 12 inches diameter. Suction-Hose. *Steam Packing*—from 1-16 to 2 in. thick. *Rubber and Gutta Percha Bands.* These articles are all warranted to give satisfaction, made under Tyger & Helms' patent, issued January, 1849.—No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all rhspects better than any in use. Proprietors of railroads do not be overcharged by pretenders.

HORACE H. DAY,
Warehouse 23 Courtlandt street.
New York, May 19, 1849.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1¼ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by IRVING VAN WART,
12 Platt street, New York.

JOB CUTLER, *Patentee.*

☞ These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

☞ *The above may be had at order at our Car Factory,*

REUEL DEAN,
ELIJAH PACKARD,
ISAAC MILLS,
} SPRINGFIELD, MASS.

1y48

Mattewan Machine Works.

THE Mattewan Company have added to their Machine Works an extensive LOCOMOTIVE ENGINE department, and are prepared to execute orders for *Locomotive Engines* of every size and pattern—also *Tenders, Wheels, Axles,* and other railroad machinery, to which they ask the attention of those who wish such articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC., Of any required size or pattern, arranged for driving *Cotton, Woollen, or other Mills,* can be had on favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY, Of every description, embodying all the modern improvements, second in quality to none in this or any other country, made to order.

MILL GEARING,

Of every description, may be had at short notice, as this company has probably the most extensive assortment of patterns in this line, in any section of the country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting and *Drilling Machines,* of the most approved patterns, together with all other tools required in machine shops, may be had at the Mattewan Company's Shops, Fishkill Landing, or at 39 Pine street, New York.

WM. B. LEONARD, *Agent.*

Devlan's Machinery Oil.

THE Subscribers, Agents for P. S. Devlan & Co's "Patent Lubricating Oil"—price 80c. per gallon 4 mos. or 3 per cent off for cash.

We refer to the following certificate of Messrs. Norris Brothers, in whose works, any one by calling can see the oil in use and judge for themselves.

NORRIS' LOCOMOTIVE WORKS.
Philadelphia, April 2, 1849.

We have been using throughout our Works, during the last six weeks, "Devlan's Lubricating Oil," and so far as we have been able to judge from its use, we think it preferable to the sperm oil generally used, for both heavy and light bearings. NORRIS, BROTHERS.

For sale by ALLEN & NEEDLES,
22 & 23 South Wharves,
14tf Philadelphia Pa.

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,

FROM 1 1-2 TO 8 INCHES DIAMETER.

These are the ONLY Tubes of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
28 Platt street, New York.

THE NEWCASTLE MANUFACTURING Co. continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack Screws, Wrought Iron Work and Brass and Iron Castings, of all kinds connected with Steamboats. Railroads, etc.; Mill Gearing of every description; Cast Wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
a45 President of the Newcastle Manuf. Co.

TO RAILROAD COMPANIES AND MANUfacturers of Railroad Machinery. The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tires for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. Iron; the latter a very superior article. The Tires are made by Messrs. Baldwin and Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

NICOLL'S PATENT SAFETY SWITCH FOR Railroad Turnouts. This invention for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails; being laid down or removed without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two castings and two rails; the latter, even if much worn or used, not objectionable.

Working models of the Safety Switch may be seen at Messrs. Davenport, Bridges & Kirk's Cambridge Port, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained, on application to the Subscriber, Inventor and Patentee. G. A. NICOLLS,
Reading, Pa.

MACHINE WORKS OF ROGERS KETCHUM & GROSVENOR, *Patterson, N. J.* The undersigned receive orders for the following articles manufactured by them of the most superior description in every particular. Their works being extensive, and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and dispatch.

Railroad Work.—Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles Springs and Flange Tires; Car Wheels of Cast Iron a variety of patterns and chills; Car Wheels of Cast Iron with wrought tires; Axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and millwright work generally, hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Patterson, N. J., or 60 Wall St., New York.

IRON BRIDGES, BRIDGE & ROOF BOLTS, etc. STARKS & PRUYN, of Albany, New York, having at great expense established a manufactory with every facility of Machinery for Manufacturing Iron Bridges, Bridge and Roof Bolts, together with all kinds of the larger sizes of Screw Bolts, Iron Railings, Steam Boilers, and every description of Wrought Iron Work, are prepared to furnish to order, on the shortest notice, any of the above branches, of the very best of American Refined Iron, and at the lowest rates.

During the past year, S. & P. have furnished several Iron Bridges for the Erie Canal, Albany Basin, etc.—and a large amount of Railroad Bridge Bolts, all of which have given the most perfect satisfaction.

They are permitted to refer to the following gentlemen:

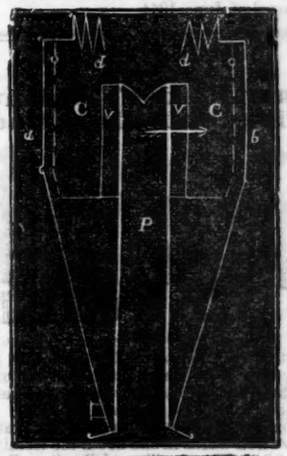
Charles Cook,
Nelson J. Beach,
Jacob Hinds,
Willard Smith, Esq.,
} Canal Commissioners of the State of New York.

Messrs. Stone & Harris,
Mr. Wm. Howe,
} Railroad Bridge Builders, Springfield, Mass.

Mr. S. Whipple,
} Engineer & Bridge Builder, Utica, N. Y.

January 1, 1849.

FRENCH & BAIRD'S
Patent Spark Arrester.



TO THOSE INTERESTED IN RAILROADS. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both Passenger and Freight Engines, and have been brought to such a state of perfection, that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase, or obtain further information in regard to their merits.

R. L. Stevens, president Camden and Amboy railroad company; Rich'd Peters, sup't Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Reading railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philad.; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. Jas. Gadsden, pres't S. Carolina railroad co., Charleston, S. C.; W. C. Walker, agent V. and J. railroad, Vicksburg, Miss.; R. S. Van Rensselaer, sup't Hart. and N. H. railroad; W. R. McKee, sup't Lexington and Ohio railroad; T. L. Smith, sup't N. Jersey railroad and transp. co; J. Elliott, sup't M. P., Philadel. and Wilm. railroad; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad, Savannah, Ga.; J. D. Gray, sup't Macon, (Ga.) railroad; J. H. Cleveland, sup't of Southern railroad, Monroe, Mich.; M. F. Crittenden, sup't mo.power Central railroad, Detroit, Mich.; G. B. Fisk, pres't Long Island railroad, Brooklyn, L. I.

Orders for these chimneys and arresters, addressed to the subscribers, care of Baldwin and Whitney, of Philadelphia, will be promptly executed.

The subscribers will dispose of single rights, or rights for one or more States on reasonable terms.

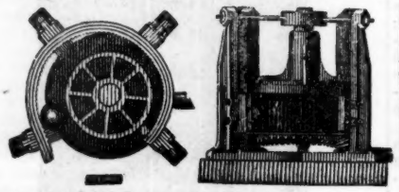
FRENCH & BAIRD.

Philadelphia, Pa., April 6, 1844.

The letters in the figures refer to the article given in the Journal of June, 1844.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phœnixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has give universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll rounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y. P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery *for making Spikes*, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

ENGINE AND CAR WORKS.

DAVENPORT & BRIDGES,

HAVING ASSOCIATED WITH THEM

MR. LEWIS KIRK, OF READING, PA.,

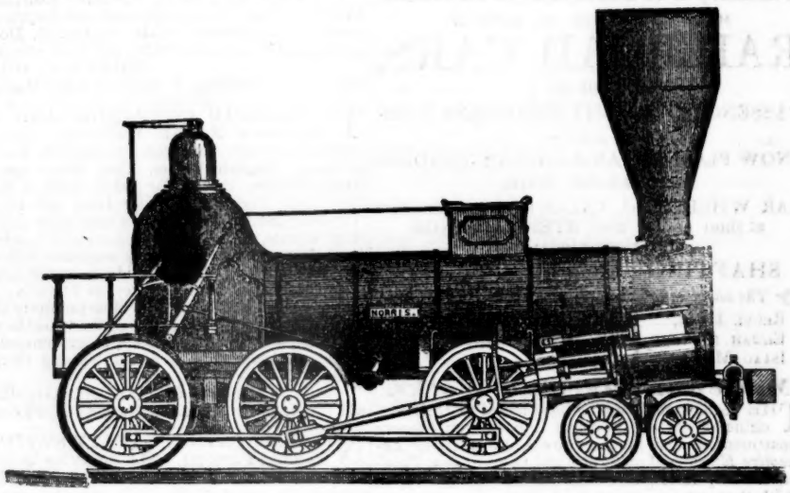
And recently enlarged their Establishment, (making it now the most extensive in the United States,) they are prepared to manufacture to order Locomotive Engines and Cars of every description. Stationary Engines, Steam Hammers, Boilers, and all kinds of Railroad Machinery. Also, Castings and Forge Irons of all kinds —including Chilled Wheels, Frogs, Chairs, Switches, Car Axles, and Locomotive Cranks, Connecting Rods, Steel Springs, Bolts, etc., etc. Orders from all parts of the country solicited for Engines and Cars, or any part or parts of the same. All orders will be furnished at short notice, and on as good terms as any manufactory in the country. Coaches pass our works every fifteen minutes during the day, from Brattle St., Boston.

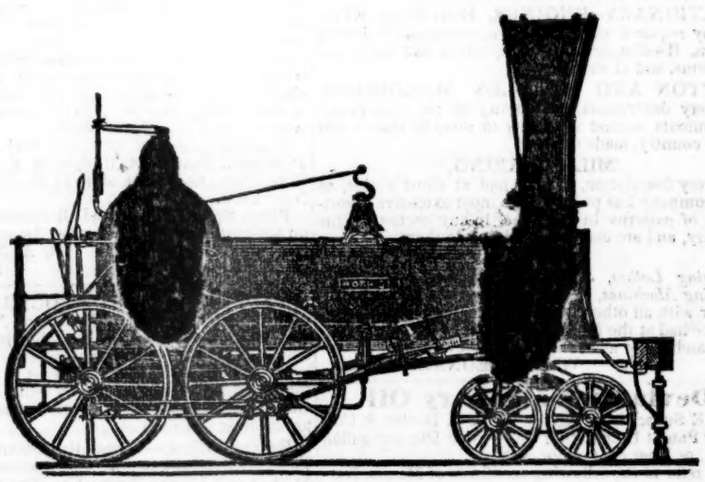
DAVENPORT, BRIDGES & KIRK.

Cambridgeport, Mass., February 16*th*, 1849.

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

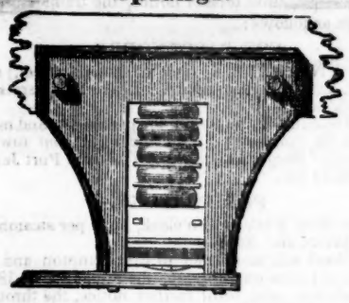
Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tires are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS.

Fuller's Patent India-Rubber Springs.



THERE *can now be no ground of opposition whatever to these Springs.* The Commissioner of Patents has not only rejected the application for a Patent for a similar Spring, but *a Patent has just been granted for an entirely new species of India Rubber*, the quality of which can be surpassed by no other kind, as the experiments which have lately been publicly made, have fully proved. No extremes of heat or cold can effect it, nor will any amount of pressure permanently alter its shape. This Patent refutes the statement of the "New England Car Company" as to their sole right to use India Rubber.

The Spring (composed by alternate layers of India Rubber Discs and Metal Plates) is superior to any other form of Spring, for several reasons: It is the lightest, the most simple and most durable—there being less friction in this than in other kind; it can be regulated to any extent desired. A less quantity of Rubber is required in this form to make a good spring than in any other because each disc or ring of India Rubber is firmly supported by metal plates, and forms in itself a distinct sprin nor is any spiral spring required. The Patentee ently able to supply efficient springs at a less cost than any other parties can do. Purchasers are guaranteed in the use of these springs.

The New England Car Company have *no* right to make an India-rubber Spring with a Bolt through the centre. All companies using such a spring are liable to an action.

Fuller's spring has been used nearly four years with complete success. It is applicable equally to Passenger and Freight Cars, to Locomotives and Tenders.—Bumpers and Draw Springs are always kept on hand, which merely require screwing to a car. It has lately been applied also to several kinds of *Machines*.

Action will be brought against all persons infringing upon these patents.

The subscriber will show Models and Drawings of the various modes of application to Cars, Machines, Omnibuses, &c. G. M. KNEVITT, Agent.

Principal office, No. 38 Broadway, New York.

Branch office, Messrs. James Lee & Co.'s, No. 18 India Wharf, Boston.

Mr. Hale, the President of the Boston and Worcester Railroad, wrote an article concerning Fuller's Springs. The "New England Car Company" take the liberty of publishing that article, omitting, however, a very important part; it is therefore given in full now, and the portion omitted by the New England Car Company is printed in italics, that the public may judge the manner in which this "company" pervert Mr. Hale's meaning.

[*From the Boston Advertiser of the 7th June*].

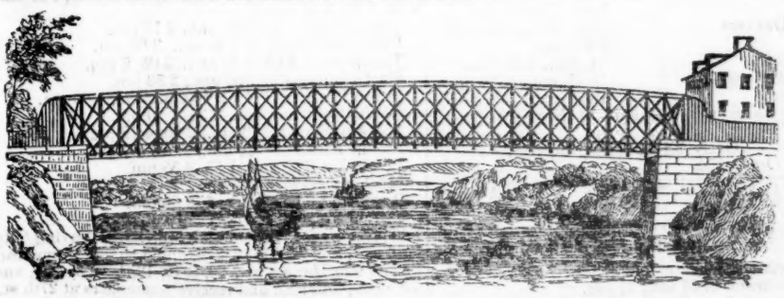
INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad.—It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it seems to be admirably adapted, and we do not learn that during that period in which it has been used, any defect has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. *Each spring is composed of several circular layers of rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr Knevitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper.*"

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.



RIDER'S PATENT IRON BRIDGE.

THE RIDER IRON BRIDGE having been fully tested on the Harlem Railroad, by constant use for about eighteen months, and found to answer the full expectations of its most sanguine friends, is now offered to the public with the utmost confidence as to its great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time is so arranged as to secure the combined principles of the *Arch, Suspension and Triangle*, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

THE IRON RIDER BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Railroad or other purposes, made under the above patent, at short notice, and at prices far *more economical* than the best wood structure, and on *certain conditions*, the first cost may be made the same as wood.

Models, and pamphlets giving full descriptions of the RIDER BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 74 BROADWAY, *up stairs*, or of W. RIDER & BROTHERS, 58 *Liberty Street*, where terms of contract will be made known, and where orders are solicited.

M. M. WHITE,
Agent for the Company.

November 25, 1848.

F. M. Ray's Patent India-rubber Car Springs.

India-rubber Springs for Railroad Cars were first introduced into use, about two years since, by the inventor. The New England Car Company, now possesses the exclusive right to use, and apply them for this purpose in the United States. It is the only concern that has tested their value by actual experiment, and in all arguments in favor of them, drawn from experience of their use, are in those cases where they have been furnished by this company. It has furnished every spring in use upon the Boston and Worcester road, and, in fact, it has furnished all the springs ever used in this country, with one or two exceptions, where they have been furnished in violation of the rights of this company; and those using them have been legally proceeded against for their use, *as will invariably be done in every case of such violation.*

The Spring formed by alternate layers of India-rubber discs and metal plates, which Mr. Fuller claims to be his invention, was invented by Mr. Ray in 1844. In proof of which we give the deposition of Osgood Bradley, of the firm of Bradley & Rice, of Worcester, Mass., car manufacturers, and men of the highest respectability. In this deposition, in relation to the right of parties to use these springs, he says:

"I have known Mr. Ray since 1835. In the last of May or the commencement of June, 1844, he was at my establishment, making draft of car trucks. He staid there until about the first of July, and left and went to New York. Was gone some 8 or 10 days, and returned to Worcester. He then on his retnrn said he had a spring that would put iron and steel springs into the shade. Said he would show it to me in a day or two. He showed it to me some two or three days afterwards. It was a block of wood with a hole in it. In the hole he had three pieces of India-rubber, with iron washers between them, such as are used under the nuts of cars. Those were put on to a spindle running through them, which worked in the hole. The model now exhibited is similar to the one shown him by Ray. After the model had been put into a vice, witness said that he might as well make a spring of putty. Ray then said that he meant to use a different kind of rubber, and referred to the use of *Goodyear's Metallic Rubber*, and that a good spring would grow out of it." There are many other depositions to the same effect.

The history of the invention of these springs, together with these depositions, proving the priority of the invention of Mr. Ray, will be furnished to all interested at their office in New York.

This company is not confined to any particular form in the manufacture of their springs. They have applied them in various ways, and they warrant all they sell.

The above cut represents precisely the manner in which the springs were applied to the cars on the Boston and Worcester road, of which Mr. Hale, President of this road speaks, and to which Mr. Knevitt refers in his advertisement. Mr. Hale immediately corrected his mistake in the article quoted by Mr. Knevitt, as will be seen by the following from his paper of June 8, 1848. He says:

INDIA-RUBBER SPRINGS FOR RAILROAD CARS.—"In our paper yesterday, we called attention to what promises to be a very useful invention, consisting of the application of a manufacture of India-rubber to the construction of springs for railroad cars. Our object was to aid in making known to the public, what appeared to us the valuable properties of the invention, as they had been exhibited on trial, on one of the passenger cars of the Boston and Worcester railroad. As to the origin of the invention we had no particular knowledge, but we had been informed that it was the same which had been introduced in England, and which had been subsequently patented in this country; and, we were led to suppose that the manufacturers who have so successfully applied this material, in the case to which we referred had become possessed of the right to use that patent. It will be seen from the following communication, addressed to us by a member of the company, by which the Worcester railroad was supplied with the article upon which our remarks were based, that we were in an error, and that the springs here introduced are an American invention, as well as an American manufacture. How far the English invention may differ from it we have had no opportunity of judging."

MR. HALE:—"The New England Car Co., having been engaged for the last six months in introducing the Vulcanized India-rubber Car Spaings upon the different railroads in this and other states, and having in particular introduced it upon the Boston and Worcester railroad with perfect success, were much gratified to find, by your paper of this morning, that the article had given satisfaction to the president of that corporation, and the terms of just commendation in which you were pleased to speak of it. But their gratification was scarcely equalled by their surprise, when, or arriving at the close of your paragraph, they found the results of all their labors attributed to a foreign source, with which the New England Car Co. has no connection. The material used on the Boston and Worcester railroad, and all the other railroads in this country, where any preparation of India-rubber has been successfully applied, is entirely an American invention, patented in the year 1844 to Charles Goodyear, of New Haven, Conn., and the application of it to this purpose and the form in which it is applied are the invention of F. M. Ray of New York. The only material now in use, and so far as has yet appeared, the only preparation of India rubber capable of answering the purpose, has been furnished under these patents by the New England Car Company, manufactured under the immediate inspection of their own agent. If any other should be produced, the right to use it would depend upon the question of its interference with Mr. Goodyear's patent. The New England Car Company have their place of business in this city at No. 99 State street, and are prepared to answer all orders for the Vulcanised India rubber Car Springs, of the same quality and of the same manufacture as those which they have already placed on your road, and most fo the other roads terminating in this city."

And yet Mr. Knevitt is using these experiments made upon the Springs of the Car Company to induce the public to purchase his springs, and is attempting to impose upon them the belief that the springs used were furnished by him! We ask whether such a course is honorable, or entitles his statements to much consideration from the public.

The above Springs are for sale 98 Broadway, New York, and 99 State street, Boston.

EDWARD CRANE Agent, Boston.
F. M. RAY, Agent, New York.

Boston, May 8, 1849.

RAILROADS.

BOSTON AND PROVIDENCE RAILROAD.

On and after MONDAY, APRIL 2d, the

Trains will run as follows:—

Steamboat Train—Leave Boston at 5 pm Leaves Providence on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 am., and 4 pm. Leave Providence at 8½, a.m., and 4, pm.

Dedham Trains—Leave Boston at 8½ am, 12 m., 3½, 6½, and 10½ pm. Leave Dedham at 7,9½, am., 2½, 5, and 8 pm.

Stoughton Trains—Leave Boston at 1 am., and 5½ pm. Leave Stoughton at 11½ am., and 3½ pm.

Freight Trains—Leave Boston at 11 am., and 6 pm. Leave Providence at 4 am., and 7.40 am.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 am., 12 m., 3, 5½, and 10½ pm. Leave Dedham at 8, 10½, am., 1½, 4½, and 9 pm.

WM. RAYMOND LEE, Sup't.

NORWICH AND WORCESTER RAILROAD.

Summer Arrangement.—1849.

Accommodation Trains daily (Sundays excepted.)

Leave Norwich at 5 am., and 5 pm.

Leave Worcester at 10½ am., and 4½ pm., connecting with the trains of the Boston and Worcester, Providence and Worcester, Worcester and Nashua and Western railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston daily, Sundays excepted, at 5 pm.—At New York from pier No. 1, North River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ am., from Norwich at 9 am.

32 1y S. H. P. LEE, Jr., Sup't.

May 20, 1849.

EASTERN RAILROAD, WINTER ARRANGEMENT.

On and after MONDAY, Oct. 2, 1848,

Trains will leave Eastern Railroad

Depot, Eastern Avenue, Commercial-street, Boston, daily, (Sundays excepted.)

For Lynn, 7, 9 11½, a.m., 12, 2½, 3½, 4½, 6, p.m.
Salem, 7, 9, 11½, a.m., 12, 2½, 3½, 4½, 6, p.m.
Manchester, 9, a.m., 3½, p.m.
Gloucester, 9, a.m., 3½, p.m.
Newburyport, 7, 11½, a.m., 2½, 4½, p.m.
Portsmouth, 7, am., 2½, 4½, pm.
Portland, Me., 7, am., 2½, pm.

And for Boston,

From Portland, 7½, am., 3, pm.
Portsmouth, 7, 9½*, am., 5½*, pm.
Newburyport, 7½, 10½*, am., 2, 6*, pm.
Gloucester, 7½, am., 3½ pm.
Manchester, 8, am., 3½, pm.,
Salem, 7½, 8½*, 9*, 10½, 11-40*, am., 2½, 3*, 4½*, 7*, pm.
Lynn, 7½, 8¼*, 9¼*, 10½, 11-55*, am., 2½, 3¼*, 4¼*, 7¼*, pm.

☞ On Monday, Wednesday, and Friday, a train will leave Boston for Lynn and Salem, at 7 o'clock; p.m.

On Tuesday, Thursday, and Saturday, a train will leave EAST BOSTON for Lynn and Salem, at 10½ o'clock, pm.

* *Or on their arrival from the East.*

MARBLEHEAD BRANCH.

Trains to leave
Marblehead for Salem, 7½, 8½, 10, 11-25, am. 2, 4½, 6½, pm.
Salem for Marblehead, 7½, 9½, 10½, am., 12½, 3½, 5½, 6½, pm.

GLOUCESTER BRANCH.

Trains leave
Salem for Manchester at 9½, am., 4½, pm.
Salem for Gloucester at 9½, am., 4½, pm.
Trains leave
Gloucester for Salem at 7½, am., 3½ pm.
Manchester for Salem at 8, am., 3½ pm.
Freight Trains each way daily. Office 1 Merchants' Row, Boston.

Feb. 3. JOHN KINSMAN, Superintendent.

ESSEX RAILROAD—SALEM to LAWRENCE,

through Danvers, New Mills, North Danvers, Middleton, and North Andover.

On and after Monday, Oct. 2, 1848,

trains leave daily (Sundays excepted,) Eastern Railroad Depot, Washington-st.

Salem for South Danvers at		7.45, 9, am., 12.45, 3.15, 6.45, pm.
Salem for North Danvers at		7.45, 9, am., 12.45, 3.15, pm.
Salem for Lawrence,		9*, am., 3.15*, pm.
Danvers	"	9.10, am., 3.15, pm.
North Danvers	"	9.20, am., 3.35, pm.
Middleton	"	9.30, am., 3.45, pm.
North Andover	"	10, am., 4.20, pm.
South Danvers for Salem at		7.45, 8.45, 11.30, am. 2, 45.5, pm.
North Danvers	"	8.20, 11.10, am., 1.40, 5.40, pm.
Middleton	"	11, am., 4.30, pm.
North Andover	"	10.35, am., 5.05, pm.
Lawrence	"	10.30*, am., 5*, pm.

* These trains will not stop at Frye's Mills nor Grove-st.

JOHN KINSMAN, Superintendent.

Salem, Oct. 2, 1848.

BOSTON AND MAINE RAILROAD.

Spring Arrangement, 1849.

Outward Trains from Boston

For Portland at 6½ am. and 2½ pm.
For Rochester at 6½ am., 2½ pm.
For Great Falls at 6½ am., 2½, 4½ pm.
For Haverhill at 6½ and 12 m., 2½, 4½ 6 pm.
For Lawrence at 6½, 9, am., 12 m., 2½, 4½, 6, 7½ pm.
For Reading 6½, 9 am., 12 m., 2½, 4½, 6, 7½, 9½* pm.

Inward trains for Boston

From Portland at 7½ am., 3 pm.
From Rochester at 9 am., 4½ pm.
From Great Falls at 6½, 9½ am., 4½ pm.
From Haverhill at 7, 8½ 11 am., 3, 6½ pm.
From Lawrence at 6, 7½, 8½, 11½, am., 1½, 3½, 7 pm.
From Reading at 6½, 7½, 9, am., 12 m., 2, 3½, 6, 7½ pm.

MEDFORD BRANCH TRAINS.

Leave Boston at 7, 9½ am., 12½, 2½, 5½, 6½, 9½* pm.
Leave Medford at 6½, 8, 10½ am., 2, 4, 5½, 6½, pm.

* On Thursdays, 2 hours; on Saturdays, 1 hour later.

CHAS. MINOT, Super't.

Boston, March 27 1849.

NEW YORK AND ERIE RAILROAD. WINTER ARRANGEMENT.

On Monday, January 1st, and until further notice, the trains

will run as follows:

FOR PASSENGERS.

Leave NEW YORK, (foot of Duane street,) at 7 o'clock, am., by steamer Erie. Leave Port Jervis at 6 o'clock am.

An Accommodation Train, for passengers and milk, will run in connection with the steamboat towing the Freight Barge, leaving New York and Port Jervis at 4 o'clock pm.

FOR FREIGHT.

Leave New York at 4 o'clock, pm., per steamboat New Haven, and Barges.

The Road will be opened to Binghampton and intermediate places on Monday, the 8th January, 1849, on which day, and until further notice, the through trains will run as follows:

FOR PASSENGERS.

Leave New York from Duane street Pier, at eight o'clock, and Binghamton at 7 o'clock, am., daily.

FOR FREIGHT.

Leave New York at 4 o'clock, pm., and Binghamton at 7 o'clock, am., daily, Sundays excepted.

H. C. SEYMOUR, Superintendent.

January 1st, 1849. ja3

NEW YORK & HARLEM RAILROAD, DAILY. WINTER ARRANGEMENT.

ON and after December 1st, 1848, the Cars will run

as follows, until further notice:—

Trains will leave the City Hall, New York, for Harlem and Morrisiana at 7, 9, 9.30, 11, am. 12 m., 2, 4, 4.15, 5.30, pm.

Trains will leave the City Hall, New York, for Fordham and Williams' Bridge, at 7 30 and 9 30 am., 12 m., 2, 4 15, 5 30 pm.

Trains will leave the City Hall, New York, for Hunt's Bridge, Underhill's and Hart's Corners, at 9 30 am., 4 15 pm.

Trains will leave the City Hall, New York, for Tuckahoe and White Plains, at 7 30 and 9 30 am., 3 and 4 15 pm.

Trains will leave Davis' Brook, Pleasantville, Chapequa, Mount Kisko, Bedford, Mechanicsville, Purdy's and Croton Falls, at 7 30 and 9 30 am., 3 pm.

NOTICE—Passengers are reminded of the great danger of standing upon the platform of the cars, and hereby notified that the practice is contrary to the rules of the Company, and that they do not admit any responsibility for injury sustained by any passenger upon the platforms, in case of accident.

Returning to New York will leave

Morrisiana and Harlem at 7 20,8, 8 50, 10 am., 12m., 1 35, 3, 3 45, 5, 5 35 pm.
Fordham and William's Bridge at 7, 8 30, 9 50 am., 1 15, 3 25, 5 20 pm.
Hunt's Bridge at 8 20, am., 3 18 pm.
Underhill's Road at 8 10 am., 3 08 pm.
Tuckahoe at 8 05, 9 30 am., 3 05, 5 pm.
Hart's Corners at 7 55 am., 2 52 pm.
White Plains at 7 45, 9 10 am., 2 45, 4 40 pm.
Davis' Brook at 9 am., 2 35, 4 30 pm.
Pleasantville at 8 49 am., 2 20, 4 19 pm.
Mount Kisko at 8 30 am., 2, 4 pm.
Bedford at 8 25 am., 1 55, 3 55 pm.
Mechanicsville at 8 15 am., 1 45, 3 45 pm.
Purdy's at 8 05 am., 1 35, 3 35 pm.
Croton Falls, at 8 am., 1 30, 3 30 pm.

The trains for Harlem and Morrisiana leaving City Hall at 7, 9, 9 30, 11, 12, 2, 4, and 5 30, and from Morrisiana and Harlem at 7 20, 8, 10, 12, 1 35, 3, 3 45, and 5 o'clock, will land and receive passengers at 27th st., 42d, 51st, 61st, 79th, 86th, 109th, 115th, 125th, and 132d streets.

The 7 30 am., and 3 pm. Trains from New York to Croton Falls, and the 8 am. Train from Croton Falls will not stop between White Plains and New York, except at Tuckahoe, Williams' Bridge and Fordham.

A car will precede each train ten minutes to take up passengers in the city. The last car will not stop, except at Broome st. and 32d street.

Freight Trains leave New York at 6 am. and 1 pm.: leave Croton Falls at 7 am. and 2 30 pm., Sundays excepted.

NOTICE—On Sundays the 7 am. to Harlem and Morrisiana, returning at 8 o'clock, and the 7 30 am. to Croton Falls, returning 1 30 pm., will be omitted, and the 7 am. from Williams' Bridge will start at 7 40 and Morrisiana and Harlem at 8 o'clock.

ST. LAWRENCE & ATLANTIC RAILROAD COMPANY.


Notice is hereby given that the Trains run twice per day between Montreal and St. Hyacinthe, leaving each terminus alternately, until further notice.

The first train starts from St. Hyacinthe at 7 o'clock a.m., reaching Montreal at 8½ a.m., leaving Montreal at 2 p.m., and reaching St. Hyacinthe at 3½ p.m.

The second train leaves Montreal at 9 o'clock, a.m., reaching St. Hyacinthe at 10½ a.m., leaving St. Hyacinthe at 4 p.m., reaches Montreal at 5½ p.m.

THOMAS STEERS, *Secretary.*

March 31, 1849.

BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare.


Morning and Afternoon Trains between Baltimore and York.—The Passenger Trains run daily, except Sundays, as follows:

Leave Baltimore at	9 am. and 3½ pm.
Arrive at	9 am. and 6½ pm.
Leave York at	5 am. and 3 pm.
Arrive at	12½ pm. & 8 pm.
Leave York for Columbia at	1½ pm. & 8 am.
Leave Columbia for York at	8 am. & 2 pm.

Fare:

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG, AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at - 5½ pm.
Returning, leaves Owing's Mills at - 7 am.

D. C. H. BORDLEY, Sup't.
31 1y Ticket Office, 63 North st.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD, FROM ATLANTA TO DALTON, 100 MILES.


This Road, in connection with the South Carolina Railroad, and Western and Atlantic Railroad, now forms a continuous line, 408 miles in length, from Charleston to Dalton Cross Plains) in Murray county, Ga. 32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston, and Dalton. 408 miles.
1st class	Boxes of Hats, Bonnets, and Furniture, per cubic foot	$0 18	$0 28
2d class	Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs, and Confectionary, per 100 lbs.	1 00	1 50
3d class	Sugar, Coffee, Liquor, Bagging, Rope, Cotton, Yarns Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow ware, Castings, Crockery, etc.	0 60	0 85
4th class	Flour Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 40	0 65
	Cotton, per 100 lbs.	0 45	0 70
	Molasses per hogshead	8 50	13 50
	" " barrel	2 50	4 25
	Salt per bushel	0 18	
	Salt per Liverpool sack	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Company will be forwarded free of commissions. Freights payable at Dalton.

F. C. ARMS,
44*1y Sup't of Transportation.

LITTLE MIAMI RAILROAD.—WINTER ARRANGEMENT.

Change of Hours.


On and after Thursday, November 9th, 1848, until further notice, Passenger Trains will run as follows:

Leave Depot East Front street at 9½ o'clock, am., and 2½ o'clock, p.m., for Milford, Foster's Crossings, Deerfield, Morrow, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield.

Returning, leave Springfield, at 2½ o'clock, and 9½ o'clock, am.

Passengers for New York, Boston, and intermediate points, should take the 9½ o'clock, am., Train from Cincinnati.

Passengers for Columbus, Zanesville, Wheeling and intermediate towns, should take the 9½ o'clock, am., Train.

The Ohio Stage Company are running the following lines in connection with the Trains:

A Daily Daylight Line to Columbus from Springfield in connection with the Morning Train from Cincinnati. Also, Daily Lines to Columbus, from Xenia and Springfield, connecting with the 2½ o'clock, pm. Train from Cincinnati.

The 2½, pm., Train from Cincinnati, and 2½, am., Train from Springfield, are intended for the accommodation of Way Passengers only, and will be eight hours on the road.

Fare from Cincinnati to	Xenia	-	$1 90
Do do	Springfield	-	2 50
Do do	Sandusky City	-	6 50
Do do	Buffalo	-	10 00
Do do	Columbus	-	4 50

For other information and through tickets, apply at the Ticket Office on Broadway, near Front-st., Cincinnati.

W. H. CLEMENTS, Superintendent.

☞ The Company will not be responsible for Baggage exceeding 50 dollars in value, unless the same is returned to the Conductors or Agent, and freight paid at the rate of a passage for every 500 dollars in value to that amount.

BALTIMORE AND OHIO RAILROAD, MAIN STEM.


The Train carrying the Great Western Mail leaves Baltimore every morning at 7½, and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harper's Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harper's Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia, and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between these points $7, and 4 cents per mile for less distances.—Fare through to Wheeling $11, and time about 36 hours, to Pittsburgh $10, and time about 32 hours.—Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily, except Sundays, from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M., and 5 P. M., and 12 at night from Baltimore, and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington, and the Relay House. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 y1

PHILADELPHIA, WILMINGTON, & BALTIMORE RAILROAD.


Summer Arrangement.
April 1st, 1849.—Fare $3.

Leave Philadelphia 8½ am., and 10 pm.
Leave Baltimore 9 am, and 8 pm.
Sunday—Leave Philadelphia at 10 pm.
" " Baltimore at 8 pm.
Trains stop at way stations.

Charleston, S. C.

Through tickets Philadelphia to Charleston, $20.

Pittsburg and Wheeling.

Through ticket, Philadelphia to Pittsburg, $12.
" " Wheeling, 13.
Through tickets sold at Philadelphia office only.

Wilmington Accommodation.

Leave Philadelphia at 12 m. 4 and 7 pm.
Leave Wilmington at 7½ am., 4½ and 7 pm.

Newcastle Line.

Leave Philadelphia at 2½ pm.—Baltimore at 1½ pm.
Fare $3.—Second class, $2.
N.B.—Extra baggage charged for.

I. R TRIMBLE, Gen. Supt.

PHILADELPHIA & READING RAILROAD.

Passenger Train Arrangement for 1848.


A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock am.

The Train from Philadelphia arrives at Reading at 12 18 m.

The Train from Pottsville arrives at Reading at 10 43 am.

Fares.	Miles.	No. 1.	No. 2
Between Phila. and Pottsville,	92	$3.50 and	$3.00
" " Reading	58	2.25 and	1.90
" Pottsville "	34	1.40 and	1.20

Five minutes allowed at Reading, and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf.

CENTRAL RAILROAD—FROM SAVANNAH to Macon. Distance 190 miles.


This Road is open for the transportation of Passengers & Freight

Rate of Passage	$8 00. Freight—
On weight goods generally,	50 cts. per hundred
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil)	1 50 per barrel.
On brls. dry (except lime)	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery	40 cts. per hundred
On hhds. and pipes of liquor, not over 120 gallons	$5 00 per hhd.
On molasses and oil	$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE,
Gen'l Sup't Transportation.

SOUTH CAROLINA RAILROAD.—A PASSENGER Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.


Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic Railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

THE WESTERN AND ATLANTIC RAILROAD.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur, and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest. P. A. BURDEN, *Agent,*
Troy Iron and Nail Factory, Troy, N. Y.

TO LOCOMOTIVE AND MARINE ENGINE Boiler Builders.

Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine, and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; hollow Pistons for Pumps of Steam Engines etc. Manufactured and for sale by

MORRIS, TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut streets,
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SPRING STEEL FOR LOCOMOTIVES, TENDERS AND CARS.—The subscriber is engaged in manufacturing spring steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address J. F. WINSLOW, *Agent*,
Albany Iron and Nail Works.

NORRIS' LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.

THESE Works are in full operation in Manufacturing to order, Locomotive Steam Engines & Tenders, of the best principle and construction of material, using wrought iron heavy frames with pedestals welded thereto, and all parts of the engine made of the best wrought iron, except cylinders, pumps and boxes—obtaining greater durability, and carrying less weight over the road, than engines constructed of cast iron.

Wrought Iron Tires made any required size, and Tire Bars bent and welded with dispatch.

Chilled Wheels for Cars, Tucks and Tenders, made from the toughest iron.

Driving and Tender and Car Wheels fitted to Axles with Brass Boxes and Springs, and Railroad Machinery generally. Manufactured and for sale by
E. S. NORRIS.

April 11, 1849.

P. S. DEVLAN & CO's Patent Lubricating Oil.

THE Subscribers invite the attention of Railroads, Steamboats, Machinists, etc., to the above article of Oil; they are prepared to supply it in any quantity. Certificates of its superiority over all other oils, from several of the largest Works and Railroads, can be seen at our office. KENNEDY & GELSTON,
5½ Pine street, New York,

Sole Agents for the New England States and State of New York. 1y14

UPPER CANADA MINING COMPANY.

INCORPORATED BY ACT OF PARLIAMENT.

NOTICE is hereby given, that an ASSESSMENT OF ONE SHILLING AND THREE PENCE PER SHARE has been levied on the *STOCK OF THE UPPER CANADA MINING COMPANY*—one half thereof, or Seven Pence Halfpenny per share, being payable, at the office of the Company, in Hamilton, or to Messrs. W. & J. CURRIE, Agents, Wall St. New York, on the *First Day of April* next, and the other half on the *First day of July* next ensuing. By order, J. D. BRONDGEEST,
Secretary U. C. M. C.

Hamilton, 24th February, 1849. 12tf

WILLIAM JESSOP & SONS' CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon.
Best warranted Cast Steel—square, flat and octagon.
Best double and single Shear Steel—warranted.
Machinery Steel—round.
Best and 2d gy. Sheet Steel—for saws and other purposes.
German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by WM. JESSOP & SONS,
91 John street, New York.

Also by their Agents—
Curtus & Hand, 47 Commerce street, Philadelphia.
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May 6, 1848.

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AT the head of navigation on the River *Thames*, and on the line of the *Norwich & Worcester Railroad*, established for the manufactory of

RAILROAD CARS,

OF EVERY DESCRIPTION, VIZ:

PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF

ENGINE TENDERS AND SNOW PLOUGHS.

TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

☞ Any communication addressed to
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General Agent,
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Will meet with immediate attention. 1y8

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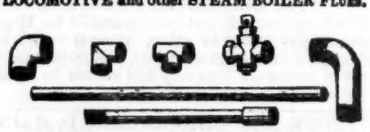
FASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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Office at No. 1 New St., corner of Wall. When absent from the city, inquiry may be made at the office of this Journal, 54 Wall St.

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CHILLED RAILROAD WHEELS.—THE UNdersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

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CHILLED RAILROAD WHEELS.—THE UNdersigned, the *Original Inventor* of the *Plate Wheel* with solid hub, is prepared to execute all orders for the same, promptly and faithfully, and solicits a share of the patronage for those kind of wheels which are now so much preferred, and which he originally produced after a large expenditure of time and money.

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He also offers to furnish Rolling Mill Castings, and other Mill Gearing, with promptness, having, he believes, the largest stock of such patterns to be found in the country. A. T.

Kensington, Philadelphia Co., }
March 12, 1848. }

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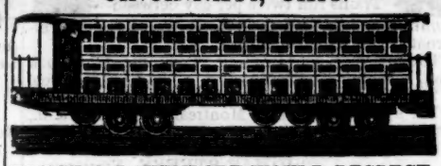

KECK & DAVENPORT WOULD RESPECTfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, Oct. 2, 1848. 44tf

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, *Agent*.
Albany Iron and Nail Works, Troy, N. Y.

The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Merritt & Co., New York; E. Pratt & Brother, Baltimore Md.

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INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
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MANUFACTURE OF PATENT WIRE ROPE and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers, etc, by
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These *Ropes* are now in successful operation on the planes of the Portage railroad in Pennsylvania, on the Public Slips, on Ferries, and in Mines. The first rope put upon Plane No. 3, Portage railroad, has now run four seasons, and is still in good condition.

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